

Backwoods Home



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No. 40

practical ideas for self-reliant living

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ISSUE

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DON CHILDERS

My view

Born of desperation

When I came to work this morning, John Silveira, *BHM's* senior editor who sleeps on a mattress on the office floor during deadline, was just waking as I walked in the door.

"What a nightmare I had," he said. "I thought I was back in DoD trying to get a job."

DoD is the Department of Defense. John and I worked for various DoD defense contractors for 15 and 10 years, respectively, prior to working for *BHM*. In fact, it took me two years and a constantly increasing wage offer to persuade him he should leave his high-paying and secure DoD job, which he hated, and come work for *BHM*, which I knew he would love.

"I dreamt I was at some defense contractors in southern California," he said. "I had quit the job three or four months before, I think, but I needed money to pay the mortgage so I was back there trying to get rehired. You were the only one I recognized; everybody else in the company had changed."

"You told me don't worry, that I'll get hired. At some point we went out to the roach coach to get something to eat, but you set the damn roach coach on fire and we had to run back in the building and hide."

"Then I was being interviewed by the boss, and he asked me why I quit. I told him I had gotten sick, that I was missing a day of work here and a couple of days there, then stopped coming in to work altogether a few months before because I was so sick. I told him I wasn't even sure I told the company that I had quit. He asked me what illness I had, but I couldn't tell him because what I had gotten sick of was the job. He asked me if I had any records from my doctor, but I hadn't been to any doctor. I could feel the job slipping away as he asked questions I couldn't answer. But I needed the crummy job to pay the damn mortgage. Man, was it depressing."

We had a good laugh. I knew the horror of such a dream first hand, and I had, in fact, lived it with minor modifications several times. In my 10 years working for defense contractors, I had quit many jobs, only to reapply to another company when the bills came due. Like John, I had hated going in for the interviews, hated going to work at the jobs, wished the day away so I could go home and do something I thought worthwhile, and lived for the weekends. I also grew to hate the growing metropolis that surrounded my home in southern California, and I grew weary of the rising crime, the increasingly congested roads, and the general din that reigns night and day in an overcrowded area.

Out of desperation, I eventually escaped to the backwoods and started a new life, not knowing just how I would make a living. This magazine was born out of the desperation I felt at the possibility I might have to return to jobs



Dave Duffy

that I hated. Luckily the magazine worked, and every issue Silveira and I work like dogs to make sure it keeps working so we won't ever have to go back to go-nowhere, miserable jobs in the city again.

There are many people out there today who are like John and I once were. They are good at what they do, but they can barely tolerate doing it. They need an outlet in the worse way imaginable. That's what this issue is about—an attempt to give you a few ideas of some of the possibilities of making a living. For most of you, the jobs depicted here will not be the jobs you will end up with, because in the end you have to create not only your own world in the country but your own job. You have to look at what you are good at, what makes you happy, what gives you the sense that you are spending your time well.

The compelling reasons that drove me to the country were job dissatisfaction and the citification of where I lived. But since arriving in the country and creating my own job, I have discovered many more benefits. Here are some of them:

My children visit me whenever they want on the job.

My children aren't exposed to drug pushers.

My children's mother is always at home with them.

I don't have to lock my house or car at night.

I look out the window and see wildlife.

I go fishing whenever I want.

All the neighbors know and depend on each other.

I look forward to going to work.

Silveira can sleep on the floor whenever he wants.

It's a great life. It takes a Silveira nightmare to wake me up and realize how lucky I am. But I quickly remind myself that I created my own luck. I took my life in my own hands.

If you feel a bit desperate about your job or where you live, you're welcome to use me as an example of what can be done. You don't have to start a magazine, but you should start something.

If you have some solid how-to knowledge to sell, writing and publishing a book is not that hard

By Skip Thomsen

Being able to earn your keep from your own home has a lot of benefits: no commuting, you set your own hours, you can involve your kids (to whom that participation can be a great learning experience), and there's just this wonderful feeling of autonomy that comes from being your own boss.

So have you ever considered writing for a living? If so, and if the thought of getting started was intimidating enough that you just put the whole idea aside, it's time to reconsider.

We are an information-hungry society. How-to books are hot sellers and are about the easiest kinds of publications to market on a small budget. Think about it: you're paging through your favorite magazine (the one that addresses your specific interests best) and you come across an ad for a book or booklet that promises to help you solve a problem that's been keeping you awake nights for some time. You'll go for it, right?

Getting started

I got started by accident. About 10 years ago, I was living on 108 acres of forest in northern Oregon. In the middle of this place, I built a 1600 square-foot house and a big shop. The house and shop had all sorts of electric tools, appliances, and gadgets, and I even had an office with a computer, photocopier, and two printers. All of this with no store-bought electricity. My place was about \$10,000 away from the nearest power lines, and I really wanted to make my own power anyway, so I did.

Over the years, quite a few visitors voiced their surprise at how I could have all these electrical conveniences

with "no electricity." (That's how most people perceive alternative power.) Several friends suggested that I write a manual on how to exactly duplicate my electrical system, since it had been working flawlessly for years.

Well, one day as I was sitting around wondering what I could do to earn a little extra cash, I remembered those suggestions, and I wrote up the initial draft of what was to become my first published writing effort.

If you have learned how to do some trade or even some specific facet of a certain skill...That, my friend, is marketable information.

The first printing was in 1989, and that little book has been selling ever since. It's now in its third printing, and it is just about time to get it ready for the fourth. This time, there will be some additional material included, covering new equipment that has recently become available. And I'm now working on my fourth book, and enjoying every minute of it.

Everybody's got a story

Almost everybody has got stories to tell, particularly you folks who have achieved some success at self-sufficiency. You've all mastered some tricks of the trade, ideas, and methods that you learned the hard way. You've all got helpful ideas to share with others.

Some people have a problem with "selling" ideas and thinking of this as "sharing." I consider myself fortunate to be able to buy, for a reasonable price, the information that somebody

else has spent maybe years and lots of money learning. If you have learned how to do some trade or even some specific facet of a certain skill, you probably learned it over a period of time. Maybe you're like me, and you did it wrong the first several dozen times before you finally got it right, and when you finally did get it right, it worked better than you had ever hoped. That, my friend, is marketable information. You aren't the only one who has ever tried to achieve that goal, and you are in a position to offer the information on how to do it to everyone else facing the same challenge.

OK, now that we've got the philosophy out of the way, how do we become writers and publishers?

Writing the book

Your topics don't need to relate to what you're into right now, either. For example, if you are a serious homesteader living up in the piney woods, but you spent the last 20 years sailing the seas in your own blue-water boat, you no doubt have some ideas to share about sailing. There are few more dedicated audiences than the sailing folks, and they read every sailing magazine they can get their hands on. Same goes for doll-makers, bee-keepers, chefs, crafts-people, nurses, motorcycle mechanics—the list is endless.

Topics with small but excited audiences are the easiest to advertise to. I have a cousin who is making an exceptional living selling mail-order patterns for doll clothing.

The easiest topics are, of course, the ones with which you are intimately familiar. They're even easier if the topic is something you genuinely enjoy. Then you just write the how-to as if you were sitting there, talking

with a friend. You know your subject, and the information just flows out.

Don't even try to create the perfect manuscript the first time out. Just pour out the ideas and thoughts. Hopefully, you're using a computer, because that makes it a whole lot easier. It can be done with a typewriter, or even by hand, but it's a lot more time-consuming that way.

Get the ideas down, and then spend the time to edit them into a logical progression. Don't worry too much about perfect grammar, either. Nobody's going to critique your work: they just want the information.

Should you be really worried about your writing ability, have a friend edit your manuscript for you. You can even have someone else do all the writing for you if you'll just dictate the information.

Once you're done with the last edit and you're satisfied with your writing, it's time to produce some marketable merchandise. The first step is printing the pages, and although a laser printer makes the best-looking page, you can get away with a letter-quality dot-matrix printer. What you're creating here are the "masters," the originals from which your actual production pages will be copied. Photocopying clear, sharp, letter-quality dot-matrix output makes it look almost as good as laser output, and certainly good enough for most how-to booklets. Just plain typed output works OK, too, but I must stress here that if you get even a little bit serious about writing, you need to get a computer. More on this later.

The "publishing" part — how it works

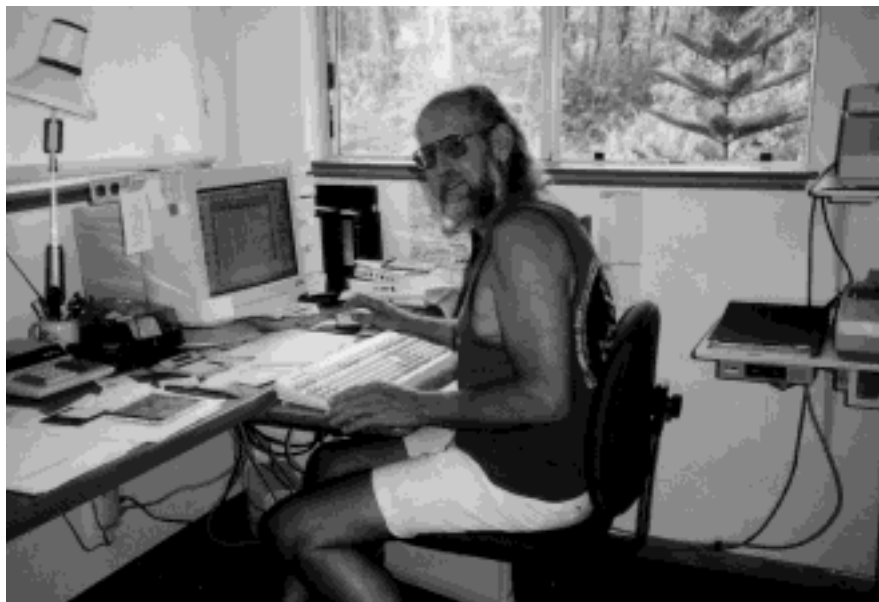
The detailed nuts and bolts of this business are beyond the scope of this article, but what I'll "share" with you here are the basics. Then if that builds a fire under you, check out the bibliography at the end of this article. Listed are the very best of the several hundred dollars' worth of books that

I've bought dealing with self-publishing and the marketing of your own writing.

The simplest way to get into self-publishing, and the way requiring the least money to get started, is to do booklets. Booklets can be printed inexpensively and bound with a low-cost saddle-stapler. Booklets are most easily produced in the standard 8½ x

bound the books using plastic "comb" (GBC) bindings. The machine that punches the pages and installs the bindings costs around \$300.

When you start thinking in terms of bigger quantities, you should know that printing/bookbinding firms like to be paid up front. The cost per book goes down dramatically as the number of books printed goes up. The cost



The author at work in his home office

11" size of paper, or if you have a word processor that's capable of it, half that size (8½ x 11 folded in half). Booklets are great for single-topic publications, like how to grow bug-proof tomatoes, how to build a greenhouse for under \$100, how to get the best firewood for free, how to troubleshoot computer problems, how to make your old truck run forever . . . this list is endless, too.

The book I did on my electrical system turned out to be over 80 pages (lots of drawings and diagrams), and since it was designed to be an instruction manual for a moderately-complicated project, it became a book rather than a booklet. I also wanted it to be a durable work-manual with a lay-flat binding. I did the first 1000 books by having the pages and covers printed by a regular print shop, and then I

usually levels out a bit at about 3000 copies, so that's about a minimum practical order.

As an example of the quantity-discount thing, the next run of my power-system books was 3000, and the printer did the whole job, including collating the pages and binding the books, for less per book than it cost just to have the printing done on the first (1000-book) run.

The first run

If you're going to be doing booklets, you have several options. For just a few, like less than 100, the cheapest way is to have your nearest photocopy store make the pages for you, and then you can bind them with a stapler. A saddle-stapler is the best way to go here, because it is designed for that

purpose. The booklet gets folded before stapling, and then it's simply opened again, and the fold is used to locate it on the stapler. The stapler then sets the staples right into the fold, and your product looks professional. Saddle staplers are also much heavier duty than common desk staplers, and they use heavier staples. They are available at most office supply stores, and if they don't have one in stock, they can order it for you. A desk stapler really is unsuitable for anything more than five or six sheets of paper. (See the Viking catalog in the bibliography.)

If your publication more closely resembles a book, and you want to use a comb binding, you can either purchase a binding machine or go to your copy shop and use theirs. Some copy shops will do the binding for you or let you do it yourself at a greatly reduced charge. They'll also have other methods of doing inexpensive binding.

For most booklets, regular copy paper is OK, depending on the quality of the paper and the printing process. The deciding factor is the transparency of the paper. Get a sample page with copy on both sides, and see how transparent it is. If you can see the printing on the back side coming through, the paper is too thin. *Always have the copy shop run a sample before printing a bunch of anything.* For a book, paper weight should be 50-pound stock. Anything thinner isn't durable enough and it just feels cheap. Covers should be heavier stock than the pages.

Explain what you're trying to accomplish and ask for suggestions. Often, copy places will have an over-supply of some paper that might suit your needs fine, and they'll sell it at an attractive price. Ask your copy shop about paper prices. If you find a good deal on paper, buy as much of it as you can afford. The prices rarely go down. Sometimes you can get a thicker paper that's less expensive than some of the thinner, more transparent

kind. And by all means, if you live where you have any choice, shop around. Prices vary a great deal from one place to another. Also ask about quantity prices. Some places offer price breaks at pretty low quantities.

Marketing your books

OK, now you are the proud owner of a box or two of your books. (You are now a publisher.) How will you market them? Classified ads in magazines addressing the book's field of interest are the most cost-effective on a limited budget.

Directly placing your product in stores that sell related supplies works, too. For example, a nursery or garden supply store would be a logical place for "How to grow bug-free tomatoes," or "How to build a greenhouse for under \$100."

The easiest topics are, of course, the ones with which you are intimately familiar. They're even easier if the topic is something you genuinely enjoy. Then you just write the how-to as if you were sitting there, talking with a friend.

Many independent merchants will be happy to sell your books for you on consignment. The discount is usually 50%, so if the book sells for \$4.95, you split that with the merchant. Consignment means that you place the books with the merchant, and he pays you for them as they are sold. Merchants are also more receptive to this idea if you can furnish some sort of display unit for your books, which can be as basic as a small cardboard box of the right size that will display the books standing up.

We've just scratched the surface of the possibilities in this article. If writing for a living sounds interesting to you, invest in some of the books listed below (or try your library). There is a lot to be learned in this business, but you don't need to learn it all at once. I recommend that you read completely through Dr. Lant's book, and then keep it around for reference. If the spark is there, this book will get the fire roaring.

About that computer

Let's get back to the computer thing for a moment. Excellent used machines are available in the \$500-700 range, loaded with software, and often complete with a printer. (I recently sold one for \$350.) Computer technology is advancing at such a rapid rate that what you buy new today is "obsolete" tomorrow. That makes it good for us folks who can get along just fine on yesterday's technology. I've written several books now on an ancient 386-DX/33 computer, which is considered totally obsolete. It does everything I need it to do, and then some. There are lots of complex businesses that depend on more antiquated computers than this one to do all of their accounting, word-processing, advertising, etc.

Don't let anybody sell you on the idea that you need the speed and capacity of a new machine. For word-processing, speed is immaterial. If you also want to get into the Internet, then you would do well to buy a faster machine, but even then a 486/66 or thereabouts will do nicely. And they're also dinosaurs and available cheap.

Bibliography

How To Make A Whole Lot More Than \$1,000,000 Writing, Commissioning, Publishing And Selling "How-To" Information, by Dr. Jeffrey Lant. \$39.95, ISBN: 0-940374-26-9. OK, that title really turned me off, too.

So did the price. But more than any other book I've read on the subject of writing and selling your work, this one is a bargain. Dr. Lant covers everything, with particular emphasis on the small-time writer of how-to material. With this information, you are set to go, and to take your new business to any heights you desire. This one is written in a casual, conversational style, and speaks to those of us who are entirely new at this game, as well as to those who are old hands at it. If you're only going to buy one book, this should be the one.

The Complete Guide to Self Publishing, by Tom & Marilyn Ross. \$16.95, ISBN: 0-89879-354-8. This book is more for those who want to get right into real, full-size books. It's got a lot of info, and it's a lot less spendy than Dr. Lant's book, but this one is directed to a more commercial, "big-time" approach to publishing.

1001 Ways to Market Your Books, by John Kremer. \$19.95, ISBN: 0-912411-42-2. This book is a gold mine of information on places and ways to market your books. It's a 500+ page, well-indexed resource that's a must for the serious writer.

Getting it Printed, by Mark Beach. \$29.99, ISBN: 0-89134-510-8. This one is for when you're ready to produce your first serious, high-quality book. It covers everything you'll ever need to know about dealing with printers and getting the highest quality job for a reasonable price. Beach explains all the tricks of the trade, the processes used in every aspect of printing, and he takes the mystery out of "print-speak," the language used by those in the trade. It is important that you know this language if you're going to be dealing with printers. They all assume that you do, and if you don't, you're going to end up paying too much, getting something other than what you had in mind, or both.

Viking Office Products Catalog, 800-421-1222. This is a catalog, not a book, but it's a valuable resource. These folks are some of the best in the business, and they handle a very complete line of office supplies and tools (like saddle-staplers and binding machines). Their prices are the best around, they ship the same day, and the shipping is free on orders of over

\$25. If there's an error in any shipment (theirs or yours), they'll come pick up the wrong shipment and send another. It's a pleasure to deal with these folks. There is one catch: you need to be a business, so dream up a name for your new publishing business. You're going to need it pretty soon anyway, right? Call for a catalog. Δ

A BHM Writer's Profile: Darlene Campbell

One of Campbell's fondest memories is of her father's backyard rabbit hutches when she was a girl. There were always a few hutches of rabbits no matter where they lived, and she remembers how her mother often cared for the baby bunnies.

When she moved to Southeast Oklahoma in 1979 she and her husband, John, began raising rabbits commercially, but all her childhood memories hadn't prepared her for the losses they encountered in the beginning. Through trial and error she learned the right and the wrong ways to raise them. Later she wrote and sold her first book on rabbit management to TFH Publications, the world's largest publisher of pet books. Her next book was on raising parakeets.

Animals have always been a part of Campbell's life. On the farm she was able to surround herself with goats, calves, pigs, and poultry as well as rabbits.

When the rabbit venture folded she turned the building into a cattery and began raising registered Himalayan and Persian cats. She continued her writing about country life selling to such magazines as *Backwoods Home Magazine*, *Organic Gardening*, *I Love Cats*, and others.

In 1995 she began publishing "The Christian Homesteader," a newsletter geared toward homesteaders because she wanted to share her knowledge with others. The newsletter saw four successful years before it ceased publication due to other interests and lack of time.

Moving back to Arizona in 1998 Campbell is no longer farming but continues to write of her experiences so others may learn. She currently raises Yorkshire Terriers and makes turquoise jewelry in the historic town of Mayer.



Here are two country couples who diversified to make a living

By Dave Duffy

One of the best ways to determine how to make a living in the country is to go into the country and examine how people already there are making a living. What you'll find is that there are few ideal country jobs. In fact, there are few jobs period, and what jobs there are are lower paying than their city counterparts.

That's a daunting situation for a lot of people grown accustomed to a certain level of income. In many cases, people who are professionals or highly skilled in their field cannot find an opening related to the type of skill they have. They must do something totally new.

But as difficult a situation as that may appear to be, there is a bright side: the harder it is to find a job in the country, the less populated—and more desirable—the country becomes. If it were easy to find a good job in the country, the country would quickly fill up with people who would bring with them all the problems they sought to leave behind.

So if you want to make it financially in the country, you must be resourceful in how you pursue employment. And if you can't find a suitable job, you must create your own job, or diversify and perform several jobs needed in your area.

I took a look around my area in northern California to see how my neighbors made their living. I could have picked many of them to show as examples, but I picked just two couples. Both had given up good jobs to move from the city to the country years ago, and both had used their ingenuity to adapt to the sparser financial pickings of the country.

The key to their continuing success has been, in large part, their ability to diversify. Their example may give you an insight into the type of thinking often necessary to make a living in the county.

Paul and JoAnne Luckey

Paul and JoAnne Luckey owned a successful leather clothing consignment shop in Sausalito, located at the other end of the Golden Gate Bridge from San Francisco, California.

"We sold everything from hats to boots," Paul said. "I even went to Mexico and learned how to make cowboy boots." The Luckeys hired a U.C. Berkeley professor to teach tailoring for 6 months to 10 of the people who were consigning items to their

shop. "Seven of them went on to open their own businesses," Paul said.

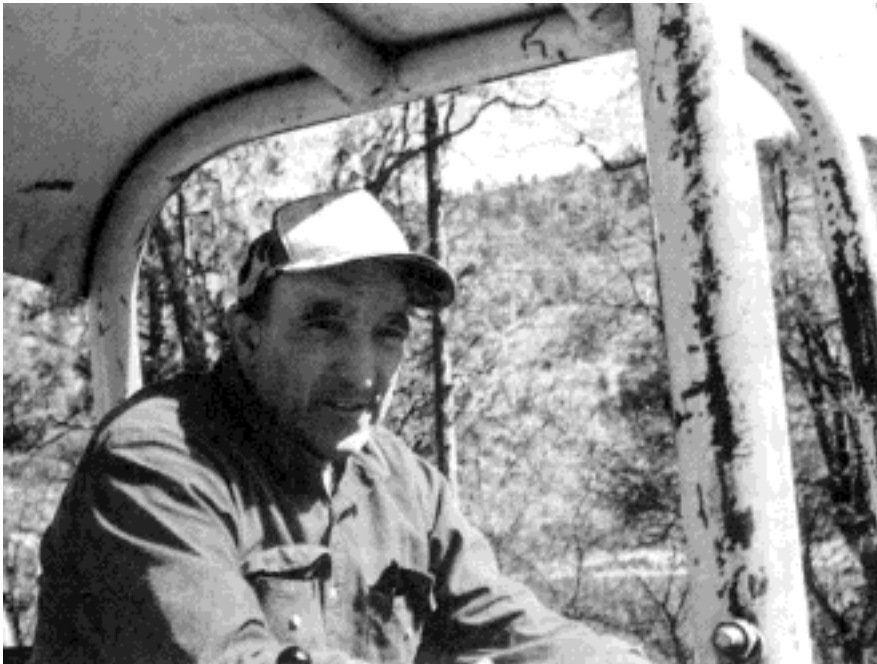
By the mid 1970s, however, the Luckeys were "fed up with the drugs, alcohol, and crime in the city." They decided it was not a good place to raise their four children, and they began looking for "a simpler lifestyle ...cleaner and more healthy to raise the kids."

They chose northern California as their getaway. "It was during a severe drought in that part of California," Paul recalled. "I used to climb Mount Shasta and saw this incredible amount of water everywhere." In 1975 they bought a small Eagle Ranch near Montague, about 50 miles from Mount Shasta. And in 1980 they made the move, leaving behind a four-bedroom, three-bath home complete with jacuzzi, pool, and weight room, and moved the family into a two-bedroom trailer on the ranch.

Then the transition began. The Luckeys had money from the sale of their business and home, but they still needed to make a living. They needed



Paul Luckey with view of Eagle Ranch in background



Paul on his backhoe, making a living

a bigger house, too, to house a family that eventually expanded to seven children.

"I knew how to work hard in the country," Paul said. "I had worked in the coal mines of West Virginia when I was 10. At 13 I left home and worked on a dairy farm in Pennsylvania, and at 16 I went to Montana and worked in the copper mines and later on my grandfather's cattle ranch there."

Paul Luckey ended up becoming a jack of all trades, doing everything from cutting firewood for sale to operating a backhoe for hire. JoAnne became a teacher's aide and spare cook at nearby Bogus Elementary school, where she has now worked for 11 years.

They have done other things, too, as the opportunities presented themselves. In the early 1980s, during this country's energy crisis caused by soaring crude oil prices, legislation was passed that forced the utility companies to buy surplus electricity from private producers. So Paul, in 1982, started building his own hydroelectric power plant, taking advantage of natural springs on a hill above his ranch.

It took him, his sons, and his brother four years and 160 dump truck loads of sand and gravel to make the 300 yards of cement necessary to corral the creek and build a power plant, but he now has a 30-year lease selling electricity to the utility company.

The Luckeys have also raised cows on their ranch for income, but they sold the cows to pay off the ranch. They now grow and sell hay. Paul and his sons have also cut and sold fire-

wood, cutting as many as 128 cords in a year.

Paul bought his own backhoe and bulldozer some years back, and now hires himself out (that's how I met him) to build new roads, dig septic systems, etc. He has also hired himself out to help build new houses, including his own, which is a 3600-square-foot home he built himself.

Because he has been self-employed most of his life, he would not qualify for social security if he were to retire today, so, since he won't turn 62 for another 10 years, he has taken a part-time job as janitor at local Bogus Elementary School to build up social security credits.

He also works for Excel Telecommunications, getting a commission on every local business he convinces to switch their long distance telephone service to Excel. *BHM* switched.

And in the past couple of years the Luckeys have managed to buy two rundown houses in town, fix them up, and rent them for extra income.

Paul admits he likes to work hard. "Work is very rewarding," he said. "You get immediate gratification at the end of each day."

The Luckeys are also religious. Paul, a Cherokee Indian, and JoAnne, an Apache, follow the Red Road. "All



JoAnne Luckey with Bogus School children

the national tribes follow the Red Road,” Paul said. “You listen to the Great Spirit within you, and you’ll find the answers to what you need to know. We’ve raised ourselves and our children not to depend on anyone else...to be independent, to be themselves, and to rely on God and themselves to make a living.”

Paul and Margaret Boos

Paul and Margaret Boos live within a few miles of the Luckeys. They own Cold Creek Ranch, having moved there from Huntington Beach in southern California 22 years before.

Like the Luckeys, they had also given up their own company to move to the country. Paul, a clinical laboratory technologist, and Margaret, a nurse, owned and operated the Huntington Beach Clinical Lab, which provided services to doctors in the area.

It was the growing crime and congestion of Huntington Beach, along with increasing government regulations that consumed an increasing part of their workday, that prompted them to sell their 12-year-old business and leave their handsome, custom-built home. They and their two young chil-

dren moved into a tent while Paul built a cabin and dug his own well.

Only a few weeks after moving into their home-built cabin, they discovered 59-acre Cold Creek Ranch. “It was a small dilapidated place,” Paul said. “It was made from an old cook shed, used when they built a dam on the Klamath River, and a chicken house. They put them together and made a house.”

Paul had intended to go into the cattle business, but “the cattle business has been a bust.” For a time he worked counting salmon for \$5 an hour at a fish hatchery on the Klamath River. Eventually both he and Margaret fell back on their professions, working for Siskiyou General Hospital in Yreka.

Both have pursued side businesses while working in town. Paul saved and bought a Wood-Mizer sawmill, and he hires himself out to cut trees into lumber. That’s how I met him. He also cuts firewood for sale, raises worms to sell fisherman who drive by his ranch, hires himself out on his backhoe, and raises registered Angus so he can sell the bulls and heifers. He also carves fish out of wood, and as a buyer of one of his pieces I can testify to their artistry.



Paul Boos with customer at Tulare Farm Show



Margaret Boos with her sheep

Margaret raises purebred registered cotswald sheep, and a few rambouillet, hampshire, and corriedale sheep, and she uses the wool to make hats, vests, felted balls, doll hair, yarn, and fleeces for Santa Claus beards. But it is the hats that make you go wow. They are fulled (as opposed to felted), beautiful, warm, and made from the natural color of the sheep she raises. She uses no dye or chemicals of any kind and, from the time she picks up the raw fleece, it takes her six to seven hours to make each hat.

Margaret crosses the wool to obtain the type of wool she wants. “I like the long fiber with luster and a small crimp,” she said. “The wool never leaves the ranch. I care for them, they are sheared here, I wash the wool, card it, spin it into yarn, and knit it into a hat.” She has made 150 hats, and you have to feel them to realize how luxurious a warm hat can be.

“I have a passion for wool,” Margaret said. “And I like to do individual things. When I start I don’t



Margaret's woolen hats

even know what I'm going to do to it. I don't want two people walking down the street and seeing the same thing on each other."

Margaret said she knits the hat to an oversized size, then washes it to shrink it to the desired size. She then shapes it on a form. Each of her hats bears a tag that says: "Homemade by Margaret Boos," and it has a photo of the sheep the wool came from.

About twice a year Paul and Margaret buy booth space at farm shows, such as the Tulare Farm Show in California. Margaret sells her hats and other wool items, and Paul sells "antique farm implements" that he has either found around the ranch or bought at auction or garage sales.

Margaret retired last year from her nursing job, and Paul will retire this year. They will use their side businesses now as their full-time occupations.



Margaret Boos demonstrating her wool hats at the Tulare Farm Show

"There are hundreds of things you can make a living at," Paul said. "There are so many things you can take out of the country without hurt it, yet make a living. People don't take time to smell the roses."

By the way, if you'd like to take a look at some of Margaret's hats, she'll send you a little handout. Her address is Cold Creek Ranch, 16038 Ager-Beswick Rd., Montague, CA 96064. Telephone: (916) 459-3288.

I hope a look at the way Paul and JoAnne Luckey and Paul and Margaret Boos have made a living has given you a sense of the possibilities of making a living for yourself in the country. Remember, there is no magic bullet to making a living. You must fit

A BHM Writer's Profile: Tom Kovach



Tom was born and raised in north central Minnesota and is now 54-years-old. He studied journalism at the University of Nevada-Reno and at Bemidji State University in Bemidji, Minnesota. He is divorced with two grown daughters and one grandson.

Tom served in the U.S. Army in Vietnam, Germany, and Korea. His hobbies include, hunting, fishing, hiking, walking, swimming, reading, biking, gardening, and travel. He has traveled all over the U.S., some of Europe, Asia, and Africa.

yourself into the country, ascertain what you can do, and adapt. Δ

A BHM Writer's Profile: Edith Helmich

Edith Helmich is a freelance writer working out of Tallahassee, Florida. She has been published in a variety of newspapers, magazines, and professional journals. She enjoys writing on a broad field of topics, using her life experiences as a base of knowledge.

Her background and experiences include teaching elementary and junior high school students and working as an educational consultant to colleges and universities in Illinois. Her graduate degree in Administration, and years of experience as an educational research scientist for the Illinois State Board of Education, provide a foundation for her articles.

A lifetime of fascination with fine foods and unique recipes provides an interest area that has expanded to provide a practical base for the culinary articles she writes. She has maintained a test kitchen for many years with a tasting panel that consists of her husband and three children, discriminating critics with healthy appetites.

The “night crawler condo” is a great way to make money

By Angela Jenkins

Raising worms to sell to fishermen is a time-tested way to increase your income, and this “night crawler condo” method will help you make such an operation more efficient and neater.

To build a crawler condo takes little more than a trip to the garden or farm supply store. Depending on the type of food store chain that’s in your area, it may all be there in one stop.

To get started you need:

1. Styrofoam cooler with a lid (20-quart for the first one)
2. Peat moss
3. Clean soil such as potting soil for plants
4. Aged cow manure
5. Yellow cornmeal
6. Used coffee grounds
7. Rabbit food (alfalfa pellets)
8. Two dozen night crawlers (from a bait shop or your own back yard)
9. Water
10. Old towel or material that will hold moisture
11. Screen wire (2 pieces 4"x4")

First, the cooler must have ventilation holes cut into the sides about one inch from the bottom of each end of the cooler. Place the screen wire over the holes inside the cooler. The screen wire can be attached by using bent pieces of wire. The ventilation holes help to keep the contents sweet. Night crawlers will not thrive in soured soil.

Now the cooler is ready to be filled to within six inches of the top with a mixture of equal parts peat moss, potting soil, and cow manure. Add enough water to make the mixture damp but not wet.

Let this sit for a couple of hours to allow the water to soak through the peat moss and manure mixture, stir-

ring the mixture occasionally to make sure the moisture is evenly distributed throughout the cooler. Then it’s time to give the night crawlers their first look at their new home. Just drop them onto the top of the mix. Now take the soft cloth and thoroughly wet it with water. Wring it out and lay it over the top of the peat moss mix, making sure that the whole surface is covered (the night crawlers, too).

Twelve to twenty-four hours later, go back to the cooler and give those crawlers their first meal. While this might not sound inviting to people, crawlers love to eat this combination.

Mix together:

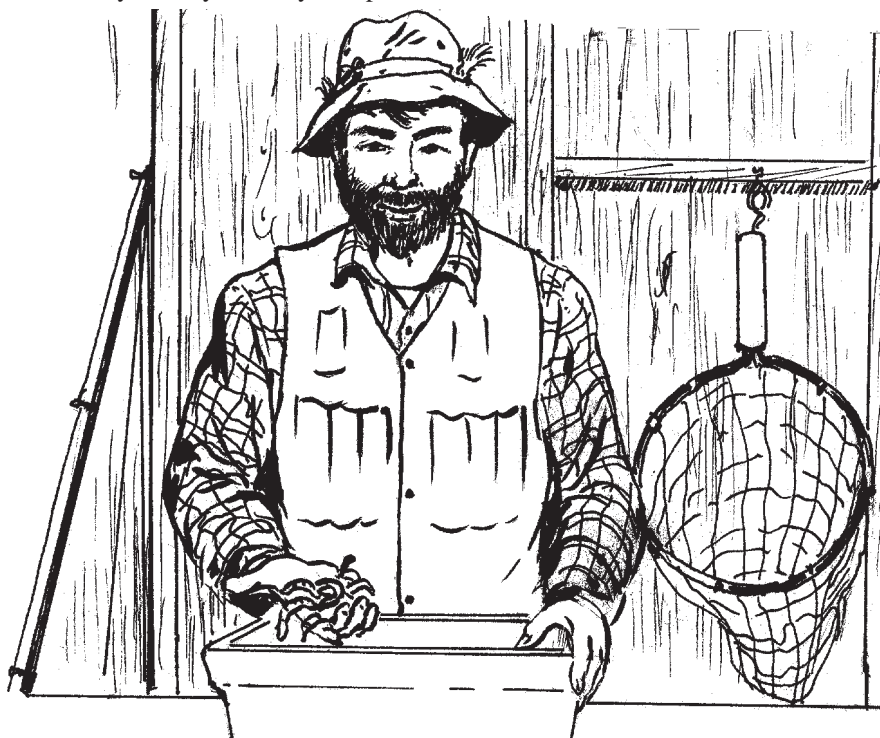
- 1/2 cup of plain yellow cornmeal
- 1/2 cup of rabbit food pellets
- 1 cup of used coffee grounds

Sprinkle this mixture on top of the damp soil mixture and re-cover with the wet cloth. Additional used coffee grounds (about 1 cup) can be added about every ten days. Always keep the

soil mixture damp, but not wet. The rate of moisture loss will depend on the air temperature and circulation around the cooler, so the dampness level should be checked at least once a week. If the soil feels dry, add water. The soil mixture in the cooler must never dry out completely. Night crawlers must have access to water to survive.

The upkeep of this crawler condo is quite simple. The night crawlers will come to the surface and eat the cornmeal and rabbit pellets. Check on them at least once a week to keep track of how much food they are eating. As they grow, they will require more food, but that’s fine, because bigger night crawlers catch bigger fish.

As the food is depleted, simply add more by sprinkling the rabbit pellets, corn meal, and coffee grounds on top of the soil mixture and re-covering with the damp cloth. Always keep the cooler lid firmly in place after adding food or water. Placing a weight, such as a brick or a piece of firewood on top of the cooler is good insurance. Night crawlers are travelers, and they will crawl out if the lid is left ajar.



When the crawler condo is finished, place it in a cool, dry place such as a basement or garage. If the cooler is kept over the winter, a basement is a better choice in case there is exceptionally cold weather. In the cooler, the night crawlers cannot go deeper for protection from very cold temperatures as they can outside in the soil, so the protection of basement walls will hold them through the winter.

Night crawlers will grow to enormous size given this special gourmet treatment, and they are always available for a fishing trip with you when it's too hot to find them outside, or it's that first warm day in spring and the ground temperatures haven't warmed enough to bring them up near the surface.

This one-time setup will last three to four months. It's time to re-new the contents when the soil level has dropped to about half-way down the side of the cooler. At that time, just take out the night crawlers and put them in a separate container to hold them until you empty and replenish their home again. The peat moss and manure mixture being removed from the cooler will be an excellent addition to a flower bed or compost bin.

*When my pen is stilled
And my tongue is cold
And I can no longer
Hold you in my arms
My words will still be there
Read them
And though there will be other men
To hold you
I will still talk to you
From the poems I've left behind
And you will remember me
And when you've finally come
To join me
I will embrace you forever
And whisper poems of love
To you
For eternity*

John Silveira
Ojai, CA

The worm castings in the peat moss mix are nutrient-rich food for plants.

When you replenish their condo with fresh bedding, you will find that the number of night crawlers has multiplied rapidly. Now is the time to set up other coolers with the extra worms, or better still, pull out those extra worms and sell them to the folks that didn't get their condos ready before winter.

Small grocery stores, bait and tackle shops, and service stations all sell night crawlers if they are situated around a lake or river area. Now even a few of the larger chain stores such as Wal-Mart and K-Mart are carrying night crawlers in the sporting goods section as a regular item. Night crawlers can best be packaged in styrofoam cups with lids. Fill the cup with dampened peat moss and add about a dozen worms per cup. Eight to twelve-ounce cups will do the trick.

With the crawler condo setup, a supplier can easily raise thousands of night crawlers in a limited amount of space in a matter of weeks. Δ

A BHM Writer's Profile: Michael Clayton

Michael Clayton was born in Jacksonville, Arkansas, and raised in Sherwood, Arkansas. He grew up with a backyard garden and started growing radishes and lettuce, and as the years went by he started helping to grow other plants including eggplants. Michael graduated from the University of Arkansas at Little Rock with a BA in Criminal Justice and in 1998 he completed a correspondence course in PC repair from the International Correspondence School. He is a member of the Council of Conservative Citizens and the American Nationalist Union for whom he was the Television Review for a short time in 1996 for their newspaper *The Nationalist Times*.

A BHM Staff Profile: Jean L'Heureux

Jean "Pop" L'Heureux is an Assistant Editor at *Backwoods Home Magazine*. His primary duties are maintaining the subscription database and inputting the "Letters to the Editor" for the magazine.

He has an extensive background in computers, operating them almost from their inception, and brings his knowledge to the magazine.

He vacationed in Gold Beach, Oregon, several years prior to the magazine's arrival there, and he loved it so much that he moved there,

away from the hustle and bustle of a hectic city life. When *BHM* located to Gold Beach he postponed his retirement and joined the staff of the magazine.

Jean enjoys the salmon fishing available in the Gold Beach area, and he caught an 18 ½ pound salmon his first trip up the Rogue River.



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Three times the International Society of Newspaper Editors has included Vin Suprynowicz in their list of the 12 top weekly editorial writers in North America. For years his shoot-from-the-hip style has opened the eyes of thousands to government abuse of our liberties. In this book, Send in the Waco Killers, he blends material taken from his syndicated column with new commentary to give the reader a detailed, reporter's-eye-view of how the rights and freedoms of Americans are being subverted.

He uses factual accounts from the daily news to show how the Feds use the drug war, the public schools, jury rights, property rights, the IRS, gun control, and anti-militia hysteria to increase its power and control over us. He details how agents of the ATF and FBI have routinely lied, how they use paid informants to infiltrate Constitutionally-protected militia groups, then fabricate evidence to get arrests and discredit them.

Had he lived 225 years ago he'd have written a book to detail how King George III and Parliament have tried to enslave us but, sadly, this book is about how our government today is depriving us of our freedoms and ruining the lives of thousands without changing even one word of our Constitution.

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Join the nearly half million people from around the world who visit the *Backwoods Home Magazine* website annually.

Go to:

www.backwoodshome.com

You can view the foregoing article, along with more than a hundred others from past issues of the magazine.

A BHM Writer's Profile: Dana Martin Batory

Though Mr. Batory studied for a B.A. in Geology at Ohio State University and is still an avid mineral collector he now operates a small, one-man, custom woodworking shop. He is the author of numerous how-to articles which have appeared in such magazines as *American Woodworker*, *Woodwork*, *Woodworker*, *Popular Woodworking*, etc. He has also written several articles on antique woodworking machinery which have been published in *Antique Week*, *Woodshop News*, etc. Besides having written Vintage Woodworking Machinery: An Illustrated Guide To Four Manufacturers (1997), Dana supplies the



section on antique woodworking machinery for Schroder's Antiques Price Guide which is Collector Books' number one best seller, and he has been on their Advisory Board since 1991. He is presently engaged in researching and writing other volumes in his planned series on American manufacturers of woodworking machinery. Volume Two will probably cover Whitney, Crescent, Parks, and Boice-Crane.

In order to raise needed funds to continue his research Dana is presently making selected items from his collection of vintage woodworking machinery catalogs and manuals available as photocopies. A 40+ page list (updated quarterly) is available for a \$7.50 money order.

Dana is also interested in acquiring by loan, gift, or photocopy any and all documents, catalogs, manuals, photos, trade journals, personal reminiscences, etc. pertaining to woodworking machinery and/or their manufacturers, past and present, to continue his research. All assistance will be acknowledged in print. Loaned material will be treated with care and promptly returned. Dana Martin Batory, 402 E. Bucyrus St., Crestline, OH 44827.

Raising rabbits — for meat and making money, it's hard to beat this creature on the homestead

By Jayn Steidl Thibodeau

Rabbits. Everyone who has ever tried to raise a garden has cursed them at one time or another. Hunters stalk them in the cool autumn air, hoping to bag enough for a tasty stew. Moviegoers cry over Bambi's friend Thumper, or laugh as Bugs and Elmer Fudd battle in cartoonland. But domestic rabbits could add another dimension to this portrait of rabbits. Domestic rabbits (an entirely different species than the wild rabbit) not only have the capability of producing enough meat from a single pair to feed a family of four for a year, but also can be an economically viable commercial enterprise for your homestead.

Mike and I have raised rabbits for nearly 20 years, and believe me, we have made every mistake in the book—and a few not even listed. But overall, we have learned that rabbits are hardy, inexpensive to purchase and feed, and (providing a few simple rules are followed) not particularly labor-intensive, compared with other livestock.

Shelter

Housing will be the most expensive item in a beginning rabbitry, but used cages are available at reasonable prices in most locales, or it is a simple matter to build your own. Many rabbit raisers utilize an old shed to hang cages. Others simply put the cages under a tree in the great outdoors. We don't recommend the outdoor method because feed-to-weight conversion is better in a controlled environment. Close contact with wood also increases the incidences of an aggravating little critter called the ear mite. If you are using an old shed or a chicken house, be sure the ventilation is ade-



Here's a nice litter of California hybrids at three weeks.

quate and the roof doesn't leak. Walls and doorways should be secured to keep predators away. The neighbor's cat may look cute lolling about on top of a cage, but when a nervous mother stomps an entire litter to death, the humor in the situation is hard to find.

Having a source of water available is a must. You can utilize automatic waterers instead of using the old crock method, which often leaves the animals without water for extended periods of time. Automatic waterers are very simple to set up using either a pressure reducer or a gravity flow system. Several styles are available. The tube type is great for a warm climate and is really simple to repair. The PVC styles run into a bit more money to set up, but are great for cold weather areas. A heat tape can be run through the lines to prevent water freeze-up. These styles and others are available from dealers of rabbit supplies.

Much of the decision about what breeds to choose will depend on your market. Some people will find that a

pet market is what they are most comfortable supplying and will choose to raise a dwarf breed or one of the popular lop or Dutch belt breeds. There are commercial markets that buy pet rabbits for resale to pet stores. The main drawback to this particular operation is that demand is seasonal, peaking at Easter, but rabbits must be bred on a regular schedule year-round. Finding a market for a rabbit that weighs only two or three pounds is difficult, and many breeders resort to the snake food market for disposing of excess stock.

Show rabbits are another "iffy proposition." Out of a litter of five, there may be only one rabbit that is of show quality. What happens to the excess?

Some breeds, such as the Rex or the Satin, produce gorgeous pelts. If you tan hides well, you may be satisfied with these breeds and find a ready market for your wares at craft fairs.

But if you are interested in a really profitable rabbit, it is best to stick with a white-furred, pink-eyed meat breed

such as a New Zealand or a California. These breeds have been bred for generations to be prolific and for mothering ability and rapid growth. Some other breeds, such as Flemish Giants, have been crossed on the New Zealands and Californias with great results for fryer growth rates, but when kept as does, they are usually too large and eat too much to be cost-efficient.

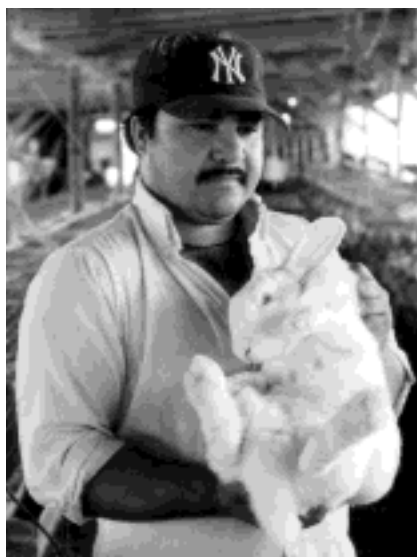
Colored stock occasionally surfaces in these white breeds, but commercial buyers discriminate in their pricing strategies against the coloreds, so don't save any for your own breeding stock, even if they are pretty.

Marketing

Commercial rabbit processors are located throughout this country, and rabbit is a popular export to Canada. Reports of widespread shortages of rabbit indicate that the market is in a stable cycle, and this is an ideal time to begin a rabbitry. To locate a processor near you, you could check with other rabbit raisers, or purchase a subscription to the magazine published by the American Rabbit Breeders Association (see below). There is a commercial section in the middle of the magazine which lists commercial prospects as well as current market reports.

Rabbit growers are an enterprising group of people, and the majority of rabbits raised in this country do not come from large rabbitries of 1,000 or more does, but rather from small back-yard growers of 10 or 12 does.

Those fortunate enough to live near a processing plant may deliver their own rabbits or have a driver with a designated route who will pick up the livestock at a pre-determined spot for delivery to the plant. Some groups of rabbit raisers have even formed informal co-ops with members arranging for large numbers of rabbits to be contracted by the processor and picked up. If you choose this method, be sure your members are reliable; if the con-



Freddy Rivera shows the proper way to hold a doe.

tracted number of rabbits is not available on the date specified, it will be difficult to deal with that company again.

Meat rabbits are also a popular item with home marketers. The meat, which is low in cholesterol and tastes somewhat like the white meat of a chicken, is in high demand from certain ethnic groups and is a popular barbecue choice. If you choose to sell your rabbits from home, be sure to sell them live and do any butchering only as a favor to your customer. Accepting money for butchering an animal brings you into USDA and health department jurisdiction, and the facilities required aren't cheap.

Choosing stock

When you pick out your stock, choose does and bucks less than one year of age. If a rabbit is being culled from a rabbitry because it is a bad mother or won't breed, you don't want to blow your hard-earned cash on it. If a doe hasn't bred by a year of age, she probably never will. Likewise, if someone offers you a couple of last year's Easter bunnies who have always lived together, avoid them like the plague. They probably won't breed.

Look for clean forelegs—rabbits clean their noses with their paws and dirty paws indicate illness—and clean anal areas. Hocks (the bottoms of the feet) should be free of sores; thin foot pads that can lead to sore hocks are a genetic trait you don't need passed on. The eyes should never be cloudy or filmy.

Teeth should be short. If an animal has teeth that don't quite meet properly, the result is malocclusion, or buck teeth, which curl around the mouth, making it impossible for the animal to eat. These teeth must be clipped regularly or the rabbit will starve. It is widely believed that this is more often caused by a recessive gene carried by the doe and the buck than by accident or injury, so don't introduce the trait to your rabbitry if you can possibly avoid it.

Check the ears for scaly brown scabs. This is a sign of the ear mite problem we mentioned earlier. If left untreated, it can cause nerve damage (wry neck) and the animal will have to be destroyed. If you do wind up with this problem, a dose of mineral oil or cooking oil will clear up the problem cheaply, or catalogs carry a variety of medications.

Run your hands over the body of the animal and feel for any hidden abscesses.

Prices

Rabbits are cheap in comparison to other livestock for the homestead. Prices vary according to the size and age of the rabbit selected. A good fryer-sized rabbit (4½ to 6¼ pounds) of about 2½ to 3 months should run less than \$5, while an older doe of 6 months to a year may run as much as \$25. If you opt for the higher-priced rabbit, ask to see the breeding records on the parents of that animal. They will give you an indication of how the animal will perform. The lower-priced fryer size won't come with records, as it is probably aimed at the meat market, but for the price, you may want to

take a chance and just breed out any defects that appear in subsequent generations.

Some companies advertise the sale of certified or registered rabbits. These can be quite expensive and are certainly not necessary for someone who intends to produce a meat animal. Investigate such companies thoroughly before investing. Most are legitimate, but a few have had complaints.

Because rabbits are so cheap, you may be tempted to over-buy. As with any livestock, get your feet wet before diving in. Rabbits are a seven-day-a-week job, and you may find that they don't fit in with your lifestyle. Ten does and two bucks are an excellent number for a fledgling commercial enterprise. As you grow, you will want to save your own stock from your best animals. It is wise to keep at least one buck for every ten does, with replacements coming up at every stage of growth at all times.

Breeding

Every doe will need her own cage, plus a cage for her fryers after they are weaned. The does are ready to breed at about eight pounds or six months of age (later for the Giant breeds), and at that time you will take her to the buck's cage—*never the other way around*. Does are territorial and can hurt the buck if they feel threatened in their own territory. You will know that the doe is in season if the vulva is slightly swollen and purplish in color. She should breed within a few minutes. If she doesn't, remove her and try it another day.

The buck should breed her twice, and this will finish him for the day. (This is why two bucks are recommended for ten does.) Don't overwork your buck or you will lower the sperm count, resulting in smaller litters. Mark the date she was bred and which buck is the sire in a book or on a calendar.

Each doe will ideally produce seven or eight bunnies in 30 to 32 days, and

you should have a nest box in the cage a few days before. Nest boxes can be made out of scrap lumber. They should be 9" wide by 18" long and 8" tall. We bought old wooden army surplus ammo boxes for about \$2 each, and they have worked beautifully. The doe will put some of her fur into the filling material (pine shavings or fine hay) for the babies, which are called *kits*. The kits will be blind, deaf, and bald when they are born, but they grow quickly and will be out of the nest box in about 2½ weeks. You can breed the mother again at three weeks after delivery, although some commercial rabbitries do it sooner. The kits will be ready to wean at five weeks of age.

Some does will have more kits than they can raise, and other does may only have three or four. Neither is a desirable rabbit, but if you have a doe with too many, just remove a few from her box and give them to the doe who doesn't have enough. Most does will raise just about anyone's kit, no questions asked. Be careful when you stick your hand in the cage, though. Even though you selected calm, sweet-tempered does, maternal instinct is protective, and you may receive a nasty bite for your efforts to help. Wearing gloves might be a good precautionary measure.



Partial view of the rabbitry. There's a lot of manure under the cages, but the worms keep it from overwhelming us.

Feed

Feed is the most expensive item in a rabbitry, but costs can be cut by getting together with other raisers, contracting for larger amounts at one time, and negotiating for a lower cost. Lots of people try to mix their own feed, but nutritionally, a pre-mixed pellet is best for the rabbit. Most commercial feeds are non-medicated, containing about 17-18% protein, 17% fiber, and 2.5-3% fat, and the rabbits produce and grow well on these ratios. The most important things to remember about feeding are to find one brand and stick to it, and to remove any moldy feed.

Buying feed in bulk is cheaper, but storing feed for long periods may break down vitamins. Feed should be stored in a dry area, such as a plastic trash can, to prevent water damage. High humidity is also a problem, as the moisture causes the alfalfa meal in the pellets to swell and break apart, allowing mold to form. Moldy feed is a major culprit in rabbit enteritis.

Rabbits have very delicate digestive systems. Because they are so small, any slight diarrhea can kill in a matter of hours. Rabbits are like people when it comes to body condition. Some rabbits will get overly fat on just a little feed, while others are downright scrawny on full feed. A good rule of thumb is to keep your non-lactating does on about four to six ounces per day in the summertime, increasing slightly in the winter, while lactating does and fryers should have all they can eat.

Any change in feed should be introduced gradually. A little hay or alfalfa cubes are a helpful treat for your rabbit, but avoid such rich items as carrots, fresh grasses, or lettuce. Rabbits are best fed at night, because they pass soft feces that are re-ingested, much like a cow chewing a cud. Although they can do this at any time, it is usually a night-time activity and feeding in the evening seems to benefit the animal.

Summer heat is hard on a rabbit; they are more tolerant of colder weather. Older bucks have been known to go sterile in high temperatures, resulting in a lot of money spent on feed and no income from fryers. Keeping back some young replacement stock in January to be ready to breed in the summer months helps. We had one enterprising friend who moved her bucks into an air conditioned room, but she found that rabbit hair kept clogging up the cooling unit.

Cleaning the rabbitry can be a nightmare or a paying proposition, depending on your management. It still amazes me how many of those little round pellets a rabbit can produce, and when there are eight or nine fryers in the cage, the mountain just seems to grow and grow. Fortunately, rabbit manure is a commercial enterprise in itself. Gardeners love it, or it can be the basis for a commercial worm farm.

From our first year, local gardeners would show up at the rabbitry, shovel in hand, offering to clean the place for the manure. We tried this a couple of times, but found that it didn't really work out. The does were upset by strangers banging around in their house, and usually people weren't particularly careful about our equipment or the mess they left behind. A fellow rabbit raiser solved the problem by removing the manure to the back of the building and letting people load up feed sacks at a dollar or two a sack.

Being strapped for time with other livestock to care for, we decided to pursue a different route, and Mike's worm farm was born. The simple addition of a few thousand worms into the manure has kept the build-up under the cages to almost nothing and there is no problem with ammonia or odors. And as an added bonus, he has gardeners and fishermen lining up all spring and summer for the little critters. We still clean out, but only once a year for our own gardening purposes.

Rabbits can be a paying proposition with little more input than an hour or

two a day for even a large rabbitry of 50 to 100 does. With proper management, a steady supply of fryers will not only pay the feed bill, but will also produce a regular income and even some excess meat for the freezer.

To appreciate the productivity of rabbits, consider this comparison: A 1,000 pound cow will produce one 500 pound calf per year. In contrast, one doe producing six litters of eight kits can produce 200 to 240 pounds of live weight in a year. So one hundred 10-pound does (that is, 1,000 pounds of rabbits) will produce 24,000 pounds of live weight per year, compared to the cow's 500 pounds.

A wide variety of marketing tactics can be employed with the enterprise, and even the waste products have a commercial value. The disposition of the rabbit is such that young children can help with the rabbit chores, and handling the rabbit requires no expensive equipment, like squeeze chutes or corrals. Literature is widely available, often at a nominal cost. And best of all, although the rabbit is very hardy, if a doe does die, the loss will not put you out of business, as she can be replaced for less than the price of a movie. Is it any wonder that the rabbit is the animal of choice for so many homesteaders across the country?

For more information

Mail-order catalogs carry a variety of rabbit-raising equipment and reading material. Listed below are some of the catalogs we have used or which have come highly recommended by fellow raisers. Prices vary with each catalog, so be sure to comparison shop.

Catalogs

Bass Equipment Company, P.O. Box 352, Monett, MO 65708. Midwest: (800) 798-0150. West Coast: (800) 369-7518. Fax: (417) 235-4312

Da-Mar's Equipment Company, 14468 Industrial Pkwy., South Beloit, IL 61080. (800) 95-BUNNY

Jeffers, P.O. Box 948, West Plains, MO 65775. (800) 533-3377. Fax: (417) 256-1550

K.D. Cage & Supply Co., 1820 S. CO 850 E., Newcastle, IN 47362. (800) 265-5113

Klubertanz Equipment Co., Inc., 1165 Highway 73, Edgerton, WI 53534. Orders: (800) 237-3899. Customer Service: (608) 884-9481

Morton Jones, P.O. Box 123, Ramona, CA 92065. (800) 443-5769

Safeguard Products, Inc., P.O. Box 8, New Holland, PA 17557. (800) 433-1819. Fax: (717) 355-2505

Reading material

The American Rabbit Breeders Association, Inc. Official Guidebook

Cash Markets for Rabbits, by Jack Messner

Domestic Rabbits, Voice of the American Rabbit Breeder's Association, Inc. Available to members of the ARBA. Membership is \$15 per year for a single membership and includes a subscription to the magazine. Contact Glen Carr, Secretary, Box 426, Bloomington, IL 61702.

Domestic Rabbit Guide, an ARBA Publication

How to Start a Commercial Rabbitry, by Paul Mannell

Modern Commercial Rabbit Farming, by Jack Messner

Raising Rabbits the Modern Way, by Robert Bennet

Rabbit Production, by Peter R. Cheeke, Ph.D., Nephi M. Patton, D.V.M., Ph.D., Steven D. Lukefahr, Ph.D., and James I. McNitt, Ph.D.

All of these publications are listed in most of the catalogs we have mentioned here, with prices ranging from \$2 to \$26.95. Excellent information is also available from your local county extension agent or state university agricultural department, often free of charge. Δ

This family started a used bookstore for under \$2,000

By Mary Kenyon

It only took 12 months of searching for a social work job for my husband, David, to consider the possibility of starting up a small business. His college degree and almost 10 years of experience working with clients proved to be of little value in his job search. After months of promising interviews, depressing rejections, and more wear to David's lone blue suit than in the 16 years since our wedding day, we were just about at the end of our rope.

It was typical of us to take 12 months to decide the direction our lives would take. In our 1979 wedding memory book, we promised each other to remain in our own little world, apart from society's rat race. Our dreams of owning acres of land, visiting Alaska, homeschooling our children, and running a small business were just that—dreams. Our oldest child was 12 years old before we finally tried homeschooling, and we've been enjoying home education for three years now. So, although the springboard to starting a small business was unemployment, the seeds of this venture were planted long ago.

Choosing a business

Why a used bookstore? The books and articles that advise potential entrepreneurs always suggest that you get involved with a business you can really love and that fills an obvious need. I'd been writing articles about what I knew and loved for years: articles about parenting, homeschooling, and saving money. Our bulging shelves of books attested to the fact that we were book lovers. And as homeschoolers and avid readers, we knew there was a need for a source of good quality used books. In our search for small busi-



ness opportunities, we also considered how our children could become involved, as part of their education. Pricing books, searching for books, and putting books onto a computer mailing list were duties we knew could be shared by our two older children.

Incidentally, an excellent reference book for those wishing to start a used bookstore is Complete Guide to Starting a Used Book-Store, 2nd edition, by Dale L. Gilbert, Upstart Publishing Co., 1986.

The initial investment

One of the most important factors in our choice of a business was the initial investment. The start-up costs had to be minimal. With no savings, no credit, and no rich investors up our sleeve, we had to consider borrowing a minimal amount from a generous relative. A business consultant we were working with was aghast at the \$2000 amount we were starting with, but he didn't understand he was working with two expert penny-pinchers. He expected empty shelves and a hole-in-the-wall decor, but we surprised him with a starting stock of over 2000 books and a pleasant, clean atmosphere on opening day. Never mind that we bor-

rowed our children's prize doll house and colorful Noah's ark wall hanging to decorate the children's book area. Never mind that the beautiful pictures of children and adults reading that adorned our walls came from garage sales and helpful relatives. We strove for a comfortable atmosphere, and we succeeded.

Choosing the books

Our initial stock of books came from several sources. We advertised in a free weekly newspaper and by posting signs on a bulletin board at a local discount store. We were looking for good, clean used books, but at that time weren't aware of what would sell the best. Our gut feeling was that our homeschooling customers, whom we planned to reach through our mailing list, would be interested in educational books, classics, juvenile series books (such as the Nancy Drews and Happy Hollisters), and older adult fiction. We invested heavily in these, as well as collections of adult paperbacks and teen paperbacks. We bought private collections for as much as \$100 and came away with boxes of books from garage sales that averaged 10¢ each. We visited thrift stores, but our sense of what would sell wasn't honed yet, and we came away with too many books that were just old, not valuable or collectible. We have read dozens of price guides and researched collectible books since then and have a much better idea of what a book is worth. The private collections netted some losers, too, in Book Club books from the 70s and 80s. All told, we spent approximately \$700 of our money on books. I even sacrificed 200 of our own books for opening inventory, figuring that within a few years I could build up our collection again.

We continue to haunt thrift stores, garage sales, and library book sales for treasures, but now we know what we are looking for. Our customers bring in books, too, for cash or credit. In general, we give more in credit than

in cash. We keep a running log on how much credit our customers have. Because we are a family store, and because we have targeted a specific customer base for our mailing list, we are constantly looking for certain books: newer adult non-fiction, older readers, pre-1960 juvenile series books, and cookbooks. We quickly found out we needed to beef up our selection of westerns, science fiction, and mysteries. The Book Club books and worn paperbacks were soon transferred to a 25¢ sale table.

Shelving

Shelving was another major expense. The few shelves we were finding at auctions just weren't going to be enough, and we wanted some kind of uniformity in the shelving of our store. My husband and two of my brothers-in-law spent several days building shelving and attaching it to the walls of the building we had rented. These homemade shelves would house all our adult books except the collector's books. We used various sizes and shapes of shelves in the children's area, including two shelves that came from our home. We were lucky to have run across a clearance sale on 72" white shelving at a local discount store which currently holds our best selection of juvenile books. Shelving took another \$600 of our start-up money.

After purchasing a secondhand adding machine, receipt books, pricing stickers, and other office supplies, we were ready to roll.

Atmosphere

Our goal was to have a comfortable atmosphere for our customers to relax in and read. The building we rented isn't fancy, but it has a low rent, is close to a grocery store, and faces a small park and a bridge over a dam. The traffic over the bridge is a big plus, as we have many customers who come in because they saw our store as they drove over the bridge. The decor

of our store is attractive, yet simple. We bought a loveseat at an auction and set it up in the adult section with an end table full of interesting magazines next to it. The pictures on the wall follow the theme of reading. We expect to purchase additional pictures as we discover them at garage sales or auctions.



We designed the children's area to be family-friendly, with low-cost books on the bottom shelves for browsing and a few colorful toys for children to play with while their parents shop. We decorate the storefront window according to the season, and display a few interesting books in the window. During the summer months we set up our sale table out front, drawing customers who might not otherwise have stopped in.

Advertising

Advertising could be a major expense, but initially we didn't have the money to invest in advertising, so we made flyers on our computer and ran off hundreds of them at an office supply store for 2.6¢ each. We blitzed grocery store parking lots the week before we opened, and hung promotional posters in my sister's consignment store a block away from our bookstore. We sent out personal invitations to our grand opening to known readers in the area and packets of flyers and information to all the area schools to be put in the teachers' mailboxes. We offered Valu-cards to all

educators, including homeschoolers, which entitled them to 5% off all their purchases. We also sent out press releases to all the area newspapers. We have since had classified ads in the paper asking for books. We have found the best advertising to be by word of mouth from our satisfied customers. For our mailing list, we ran ads in several homeschooling magazines and newsletters offering our list of over 600 children's, adult's, and educational books for sale.

We opened up our store \$70 in the red, not knowing what to expect for a day's sales. Thankfully, our first day netted over \$100 in sales. Our mailing list is well received by the homeschoolers who have requested it, and several customers order over \$50 worth of books at a time through the mail. Our diversification by selling through the mail to a target clientele will probably get us through the rough times we have at the store, like the weeks of over-90° weather in August when sales were down. The heat did not seem to affect the armchair shoppers in their air-conditioned homes.

My husband runs the store Monday through Saturday, while I manage the computer list at home, pricing books and updating our computer book list. When a particularly wonderful box of books is brought into the store, or when we discover a gem for 25¢ at a thrift store, I get chills up my spine. I love sifting through piles of books and discovering the treasures amidst the trash. Even our children have a new appreciation for good books.

Was it hard for my husband to change careers in mid-life? His answer: "Losing that job was the best thing that ever happened to me."

I don't know just how profitable our business will become, but I do know that we wouldn't mind doing this for the rest of our lives. And isn't that the way it should be?

(For a list of the Kenyon's more than 1,000 children's, adult's, and educational books, send three stamps to *Once Upon a Time Family Books*, P.O. Box 296, Manchester, IA 52057.) Δ

For headache, fever, or even rheumatism, relief is as near as the familiar willow plant

By Christopher Nyerges

Photo by Raul Castellano

Every now and then during one of my walks, someone will tell me that they have a headache. I peel off two slivers of bark from that ubiquitous plant of the streams, willow, and hand it to them. "Take two pieces of bark and call me in the morning," I tell them. Most people laugh when I say this, but some people don't get it, because they aren't familiar with willow or its history.

The inner bark of willow contains *salicin* and is **the original aspirin**. The bark of the younger shoots is strongest, and it is fairly easy to harvest.

When steeped in water, willow tea is good for headaches, fevers, and even hay fever. Due to its strong **antiseptic** properties, the tea can also be used as a good mouthwash, or used externally on wounds. A willow wash is said to work wonders for **rheumatism** sufferers.

Willow plants are somewhat diverse in appearance. Some are small and bushy, and others are tall trees. Their **leaves** are nearly all **thin and lance-shaped**, and the plant is **always found along streams**. I have seen them at sea level and higher than 8,000 feet. They are found throughout North America. You might not know offhand how to identify a willow, but I can assure you that you have driven by one or hiked by one each time you were by a stream.

Willow plants are also a source of **food . . . sort of**. For example, the

inner bark of willows has often been described as an emergency food, which is another way of saying that you'd probably never eat willow bark unless you were literally starving. As a practical matter, it is difficult to scrape out the inner part of the bark, and you generally end up eating all of the bark. Cooking renders it a bit more palatable. If dried and ground into flour and then cooked, it is even more palatable, though still in the realm of "emergency food." I have sampled this bark while backpacking with my brother and a friend. We rarely brought much food with us, preferring to catch fish and collect wild plants. We jokingly called our willow bark "wild spaghetti," which is a disservice to the reputation of spaghetti.

Euell Gibbons describes two species of Arctic willows (*Salix alexensis* and *S. pulchra*) whose tender young leaves can be eaten as a salad, or mixed into a salad. The flavor is said to be improved by cooking them first. Though I have never tried these species, I have nibbled on the wild willows of Southern California and would not include them in salads. They are a little bitter, but are improved by steaming or boiling.

In general, willow is a medicine tree, not a food source.

Willow is also one of the best sources of **craft material**. Whenever I collect willow, I go into the thickest patches, and I carefully cut only the branches I need with a sharp ratchet cutter. In all cases, when I return to those areas, I find the best and healthiest growths of new willow where I had done my careful pruning.



The author examines willow leaves.

I collect straight, dead pieces of willow branches for use in the primitive **bow-and-drill for fire-making**. Dried willow makes the best drill for fire-making. It is also an ideal wood to use for the baseplate in fire making—that's the flat piece of wood onto which the drill is spun.

Willows make interesting looking, lightweight **walking sticks**, and I have made many of these. Willow is a soft wood, so the walking sticks can easily be carved with faces or your name or anything that your abilities allow.

Long, straight willow stems are perhaps the single most useful plant in **basket weaving**. Willow is one of the most common traditional materials used in baskets, because it is light and easily worked, and it becomes flexible when soaked in water for about five minutes. Always scrape off the bark before using willow in your basketry projects.

I have seen **willow chairs and tables** at craft fairs, and there are craftsmen all over the U.S. who commonly use willow in these "backwoods" furnishings. They are very attractive. Though the Plains Indians used no chairs in their tipis, they did make a backrest out of willow. Using pencil-thick willow twigs, they lashed them horizontally onto two thicker vertical willow rods to create the backrest.

Because of willow's flexibility and common availability, I typically use willow whenever I make a **sweat lodge frame**. The sweat lodge frame is dome-shaped. Once the perimeter of the sweat lodge is drawn in the dirt, I dig holes into which I secure the willow poles. Then I bend them down and lash them together at the top to create the desired dome shape. The sweat lodge is covered with tarps, and very hot rocks are brought inside. Once everyone enters the lodge, it is closed up so that it is dark inside, and water is slowly poured onto the rocks, creating a high-temperature sauna or steam bath. This was and still is a tradition among Native American peo-

ples from North America through South America.

I have also used willow sticks for digging, and for the framework for a primitive **lean-to shelter**. It is a good plant to become familiar with, because it is so common and so versatile.

I have used long, dried willow stems as **pipes**, and—following in the tradition of Native Americans—I dry the bark of red willow and add it to my **smoking mixture**. I have sat outside my shelter made with a framework of willow, after sweating in my willow

sweat lodge, and sat around the fire which was made with a willow drill, smoking some willow bark in my willow pipe. Willow is indeed a good friend.

(Christopher Nyerges has been leading wild food outings since 1974. He is the author of Guide to Wild Foods and Testing Your Outdoor Survival Skills. A schedule of his outings appears in the *Talking Leaves Newsletter*, available from the School of Self-Reliance, Box 41834, Eagle Rock, CA 90041. The newsletter can also be viewed on-line at <http://www.earthlink.net/~nyerges/> Δ

A BHM Writer's Profile: Albert H. Carlson

Albert H. Carlson was born February 13, 1959 in Chicago, Illinois, and grew up on Chicago's south side. In high school, he became interested in physics, computers, and electronics. The natural result was no clear idea as to a college major. His sister blindfolded him, gave him a pencil, and put a list of majors in front of him. He circled computer engineer, and that was that. His tuition was paid for by an Army ROTC four-year scholarship.

In college he married his high school sweetheart, Tina Anne Geeding. Tina was a Korean orphan adopted by a Chicago artist and his wife. They met as a result of a collision when Tina, who had a crush on Al, stepped in front of a very late Al in the school hallway. He never had a chance once she decided to keep him. In 1981 he graduated from the University of Illinois at Urbana with a bachelor in computer engineering. Two days later their first child, Ariana, was born; seven days later he was inducted into the US Army as a Second Lieutenant in Military Intelligence.

Following military service Al worked as an engineer and specialized in the design and production of integrated circuitry. His projects have included state-of-the-art designs in several markets, as well as project and engineering management.

Albert's family also increased during the intervening years, adding another daughter, Corine, and two sons, Robert and Alan. The youngest is now a teenager and the oldest is preparing to enter college as a physics major in the fall of 1999.

Al is now working on his Master's Degree in computer science, specializing in semantics and computational linguistics at the University of Idaho.

His interest in lightning began with a rush of lightning strikes around the Chicago area, where he still lives, in 1990. The lack of data available only served to make the subject more intriguing. He still studies the subject and closely follows advances in the field.

In addition to lightning, Al is involved in lapidary (rock and gem cutting, polishing, and setting), Sons of the American Revolution, Revolutionary Period Color Guards, fishing, fossil hunting, genealogy, and coin collecting. He is also beginning to develop land that he has purchased in Northern Idaho in preparation for retirement.

You can have a good career as a nurse practitioner no matter where you live

By Rodney L. Merrill

Diane Burlock is your run-of-the-mill modern day wonder woman. She's a wife and mother. She's working on a Master of Science degree in Community Health Administration and Wellness Promotion. And she's a full-time nurse practitioner. I didn't ask about her hobbies.

Burlock travels throughout the five regions of Northwest Territories and northern Alberta, Canada, providing primary health care services. Her story demonstrates how earning a living and getting an education are tightly interwoven; and how, today, you can do both, no matter how far into the backwoods you may live.

"If it were not for distance education," she says, "I might not be a nurse practitioner today. I'd be a Registered Nurse, but I probably wouldn't have finished the professional degree you need to become a practitioner. I certainly wouldn't be finishing my Master of Science degree."

What does a nurse practitioner do?

I asked Burlock to explain for *Backwoods Home* readers what the title "nurse practitioner" means. What does a person with this title do for a living?

"That depends," says Burlock. "Although all nurse practitioners are advanced nurses trained to be more independent in their assessment and treatment of patients, where you live can make a big difference in what you do."

She travels the far northern regions and northern Alberta, Canada, working at what Canadians call "nursing stations." These are clinics—much like a doctor's office—but they also have an emergency room, a chest and limb x-ray, blood analysis equipment for hemoglobin and white blood count, a formulary (pharmacy), and a two-bed hospital ward. Patients needing short-term observation or treatment (but not sick enough to warrant flying them out to a hospital) can stay overnight in this mini-hospital.

"Generally," she says, "where I work, nurse practitioners are the only on-site health officer. We obtain medical histories, perform physical examinations and general health assessments. From these, we diagnose health deficits and form a treatment plan."

These deficits often are common infections like a urinary tract infection, ear infection, or infected puncture wound, or the common communicable diseases like strep throat and pneumonia. But nurse practitioners also see and manage chronic conditions like asthma, high blood pressure, heart disease, and lung disease.

"There's the usual emergency room stuff, too," says Burlock, "the suturing of lacerations [stitching cuts and wounds] and removing embedded foreign objects like fish hooks and glass."

"In my situation," says Burlock, "I am often very isolated; and when elaborate testing is required, we have to fly the patient out to a larger facility. Consequently, we must rely more on our physical diagnosis and consultation-seeking skills than city practitioners who have ready access to

sophisticated diagnostic equipment and tests." Based on the diagnosis, the nurse practitioner may prescribe medications and other treatments (such as physical therapy).

Nurse practitioners help prevent disease and promote health with screening, family planning services, prenatal monitoring, and care of pregnant women. The nursing station often sets aside morning hours for clinic and afternoon hours for health and wellness promotion.

Listening to Diane Burlock's story, I wondered, What about babies? If doctors and hospitals are so far away, do nurse practitioners deliver all the babies, too?

"We don't routinely deliver babies," says Burlock. She adds with a chuckle: "Though we do deliver a surprise package on occasion." What's *supposed* to happen and usually *does* happen, she says, is that the nurse practitioner assesses the risk involved in the pregnancy and schedules a "fly-out" to the nearest hospital two weeks to several weeks ahead. The exact timing depends on the risk assessment and the expected due date.

"In reality," Burlock says, "Women we've never seen before sometimes drag themselves into the nurse's station when they're already in labor. And even the best-monitored pregnancy can deliver early. So our *routine*, our protocol, is to schedule a fly-out, but we are capable and prepared to handle the occasional unanticipated delivery."

Whether or not they deliver the baby, rural nurse practitioners follow up with well baby checkups, childhood immunizations, growth monitoring, and general well child checkups. Later still, they monitor the adults these children grow into. They include considerable counseling and family health education as part of their health services.

Nurse practitioners also manage their patients' care by steering patients to related services and resources. When medical problems are beyond

the scope of mid-level practice—even with outside consultation—the nurse practitioner refers patients to appropriate physicians and other specialists. They also arrange for patients requiring intensive care and long-term care to be transferred to appropriate tertiary facilities (like hospitals and skilled nursing homes).

Growth of the nurse practitioner field

The nurse practitioner movement began about 25 years ago as an advanced rural nursing specialty to provide primary health care services to under-served rural areas unable to attract primary care physicians. As nurse practitioners became more accepted, their practices began to spread to inner city clinics (also shunned by physicians). Nurse practitioners evolved as a service to the patients no one wanted.

In more recent times, the revolt against the growing price tag on health care has led government agencies and insurance programs to seek ways of transforming health care from a system dependent on acute care (high-tech hospitals and emergency rooms) to one more focused on primary care settings (offices, clinics, HMOs). The challenge is how to get medical care to more people and do it on a shrinking budget. As mid-level practitioners with mid-level salaries, willing to work where they are most needed, nurse practitioners have answered this need.

Today, nurse practitioners work in a variety of settings, both urban and rural, often as members of a health care team—in public health departments, rapid care clinics, group practice offices, corporate occupational health clinics, hospitals, and nursing homes—not as bedside nurses, but as mid-level primary care practitioners. Some set up their own private practices. Others join nurse practitioner group practices.

Their call for more independence from doctors, once automatically dismissed, is now being fostered through advanced training in clinical assessment and treatment skills and more liberal state licensing laws for nurse practitioners.

Licensing laws in many states still say that nurse practitioners must be “supervised” by a physician. Passage of these supervision laws was partly motivated by the sincere concern of lawmakers for protection of the public . . . but also by the suspicion that physicians would have revolted against the nurse practitioner movement without such a provision.



Diane Burlock

Rural nurse practitioners today are rendering the services once provided by physician general practitioners (“country doctors”) before they were obliterated in the post-World War II rush to specialization, behemoth urban medical centers, and the abandonment of rural practice.

As Diane Burlock points out, “In remote areas, like the ones I visit—villages out in the Western Arctic with populations of 180, 300, 1800—it’s a nurse practitioner or it’s nobody. In

these situations, ‘supervision’ has a different meaning. A doctor might hold a clinic once or twice a month to see complicated patients, to look over your records, and discuss cases with you just to see how you’re handling things. With our long, often severe, winter climate, sometimes ‘supervision’ amounts to consultation by phone or fax.”

Can you make a decent living?

Burlock says a nurse practitioner in Canada gets “a base wage of about \$54,000 Canadian, but there is extra pay for being on-call, for call-backs, for being in charge of a nursing station, which can bring the pay up to \$75,000 to \$85,000 Canadian per year.” There are perks as well. Burlock says she is given a paid trip “out” at least once a year, a 50% rent subsidy, and additional hardship pay for working in such isolated areas.

It’s harder to pin down nurse practitioner salaries in the United States. It depends who you listen to. The following figures were produced by the State of Washington and the U.S. Department of Health and Human Services. A nurse practitioner may start out anywhere from \$30,000 to \$40,000 per year. That works out to \$14 to \$20 per hour, depending on the salary and the exact number of hours worked per week. In the Pacific Northwest (where managed care is common) the average salary for nurse practitioners is \$49,500 - \$54,250 per year. The national average is \$45,000 per year. Keep in mind that the average figure is diluted by a lot of entry-level salaries. Large salary increases come with each year of experience. Increases tend to level off at \$60,000 - \$70,000 per year. In certain specialties, though, advanced practice nurses can earn in excess of \$100,000 per year.

That sounds like a lot . . . but imagine that you are a health care administrator with a primary care position

open. A new doctor—with a dozen 25-year school loans at 8-10% compounded (non-tax-deductible) interest and a work life shortened by 11 to 15 years of post-secondary education and training—needs a six-figure income just to keep afloat. You can hire a nurse specialist to do the routine stuff (75-80% of the doctor's cases) for \$50,000 - \$75,000 a year. Those few nurse specialists who command \$100,000 or more a year render the mid-level services of a physician specialist expecting to make \$200,000 or more a year. Which would *you* hire?

And that is exactly what is happening. In both rural and urban settings, third-party payers are starting to balk at paying a doctor's fee for something that a less-costly mid-level practitioner can do. In HMOs, rural and inner city clinics, and other group practice settings, practices are being expanded by hiring nurse practitioners before hiring more physicians. As a result, mid-level practitioners are getting good salaries and greater respect. Career guidance experts are predicting persisting demand for nurse practitioners and other clinical specialty nurses; and this demand will allow them to continue getting \$50,000 to \$100,000 a year, depending on their specialty.

What is your status in the community?

"As the only on-site health officer, educator, counselor, referral agent, and public health officer," says Burlock, "your position is respected. The position is demanding and people know that. If you fulfill your duties to the best of your ability and act as a positive role model within the community, then you, as an individual, will be respected as well."

In talking with Diane Burlock and reading the notes she sent me, I get the impression that many rural patients and community leaders treat nurse practitioners with the kind of respect

once accorded to the general practice country doctor.

What are the training requirements?

Burlock says that the minimum requirement for nurse practitioner in Alberta or the Northwest Territories, Canada, is the R.N. license, the Bachelor of Nursing degree, and two or three years of rural nursing experience. New university graduates can take a fast-track intensive nurse practitioner course provided by the government and receive a subsidy *if* they pledge to serve two years' employment in the region which sponsors them through the course.

In the United States, the procedure for becoming a nurse practitioner is longer and usually requires more years of schooling. A nurse usually earns a B.S.N. (Bachelor of Science in Nursing) or B.N. (Bachelor of Nursing) and takes the Registered Nurse licensing examination. After three or more years of experience, s/he goes to graduate school for an M.S.N. (Master of Science in Nursing) or an M.N. (Master of Nursing) in a nurse practitioner specialty. This is the general idea. Specifics vary somewhat. Some people, for example, take their R.N. licensing exams before completing their Bachelor of Nursing degree. And requirements vary from one state to another.

Nurse practitioners may specialize in neonatal (premature birth) practice, pediatric and adolescent health, OB/GYN and women's health, geriatrics, family practice, psychiatric/mental health practice, and occupational health. Some advanced practice nurses may have different titles—such as Nurse-Midwife (labor and delivery) or Nurse Anesthetist (anesthesiology)—rather than nurse practitioner.

There are basically three routes to becoming a registered nurse today. Two-year colleges and vocational-technical schools offer an associate

degree in nursing which leads to "technical nursing" careers. Four year colleges usually offer the B.S.N. (Bachelor of Science in Nursing) or B.N. (Bachelor of Nursing) degree which leads to "professional careers" in nursing. Basically, "technical" nurse training focuses on direct patient care, whereas "professional" nurse training focuses more on the decision-making aspect of patient care and on managerial responsibility. Professional nurses tend to make more money and to have more opportunities for advancement into management or clinical specialty fields.

Another route to technical nursing careers is the hospital-based diploma program. I saved this one until last because there are advantages and disadvantages to this route. Hospital diploma programs exist because, during the nineteenth century, women were barred from most universities in the United States. Hospitals trained their own nurses by apprenticeship.

Rural areas are more desperate for nurses than metropolitan areas, and hospitals sometimes find it is easier to "grow their own" in a nurse training program than to recruit from the nearest university. Tuition is a lot more reasonable in hospital programs, too. Sometimes you can even get your training *free* in exchange for a promise to work in the area a certain period of time after graduation. The hospital-trained nurse gets a lot more direct patient contact and more practical, hands-on training than college programs can offer.

The main disadvantage to graduating from a hospital diploma program is that hospital-trained nurses tend to get pegged as hospital nurses. It may be harder to branch out into other fields with a hospital diploma than with a college degree in nursing. With hospitals downsizing, this could be a severe drawback. Still, don't despair if you are a hospital-trained nurse. It isn't hopeless. Read on.

Distance education opens new N.P. possibilities

The shortage of certain specialty nurses is stretching some rules and traditions. More colleges are offering "outreach" programs that allow hospital-trained nurses to demonstrate their knowledge for college credit. They then apply those credits toward their B.S.N. and complete their degrees-at-a-distance by satellite television courses, videotape, Internet courses by computer, and independent study.

That's what Diane Burlock did. She earned an R.N. through a hospital diploma program, then worked as a rural nurse for 12 years. When Burlock entered the Northwest Territories, she took a post-R.N. completion degree—the at-a-distance Bachelor of Nursing from Athabasca University—and became eligible to enter practice as a nurse practitioner.

Burlock is now making excellent progress toward a Master of Science (M.S.) degree through California College for Health Sciences. "If it were not for C.C.H.S. and its at-a-distance M.S. degree program," says Burlock, "I probably couldn't manage a Master's at all."

I asked Burlock what she saw as the benefits of studying at-a-distance as opposed to earning a degree by going to classes. "I can study when I have time," says Burlock, "and go at my pace, not according to some preset schedule. I can keep my job. The best part is, the California College of Health Sciences program allows me to schedule classes that are related to my current work assignments. They mesh. It's so much easier to learn new ideas when you can see the application in your daily work."

I asked her about the drawbacks to this approach. "For myself," Burlock says, "self-motivation can be difficult unless I work out a plan of action with definite steps. Many find that working on their own slows their progress, but I found that taking two courses at a

time (rather than one) gave me the variety I needed to keep up the pace. I could not have gotten this far without the cooperation of my family. Many times, they have been a source of encouragement."

Diane Burlock is already a full-fledged nurse practitioner. She doesn't really *need* a Master of Science degree from California College for Health Sciences. So, I wondered, why is she working so hard to get it?

"There are many reasons," says Burlock. "Self-improvement, you know, to broaden my knowledge. But, also, because nurse practitioners—especially out away from it where I go—do a lot more than emergency and regular clinical care. I'm family life educator, health educator, counselor. (Luckily, nursing stations have recently started providing a professional social worker.) Anyway, you need many skills. The course content at C.C.H.S. directly supports my career and makes me a better nurse practitioner."

"Plus," she says, "the Master's degree gives me more opportunities. I can apply to the administrative relief positions. When I go to a one-nurse station, I can be left as Nurse-in-Charge. This means more responsibility; also a pay bonus. Luckily, I've found the content of my C.C.H.S. Master's-level courses directly helpful in these situations."

Except for her hospital-based R.N. credential, Diane Burlock has completed all of her education at-a-distance while living in a rural area, even while she has worked in remote and isolated outreach stations.

How remote is remote, you ask? "For six months of the year," says Burlock, "my principal means of transportation to work is snowshoe and snowmobile."

The primary care and specialty nursing shortage is worse in rural areas than in the city. Employers tend to be far less persnickety about your credentials coming from a big name school,

or what study format you used to get them. If you've got the skills, you've got the job, and that's as it should be.

There once were many one-year non-degree nurse practitioner certification programs in the United States—for more experienced nurses—similar to the intensive program offered in Canada. There are only a few left today. In a bid for greater status, prestige, and independence, the nurse practitioner profession in the United States has pushed to increase higher educational requirements. Non-degree certification programs are fading and may disappear. Check with your state licensing agency to see if they provide alternate career pathways to experienced nurses.

In the end, you may get only as far as the B.S.N. by distance learning. You may have to leave town for your nurse practitioner Master's degree. But, as a rural nurse practitioner, the chances are extremely good that you'll be able to come back. Which means that men or women wanting to stay in the backwoods but desiring a good-paying, exciting, evolving—and admirable—career ought to look into becoming a nurse practitioner.

More information

National League for Nursing
Ten Columbus Circle
New York, NY 10019
1-800-669-1656

Internet: nlainform@nlm.org

The NLN is the official accrediting agency for nursing programs in the United States, so they know if approved programs are near you. NLN also publishes many books on nursing, including an excellent introduction called *Your Career in Nursing*. Your library probably has it in the reference section.

P.S. Shortly after this article was written, Diane Burlock wrote me a note saying she had finished her M.S. degree. Congratulations, Diane. Δ

Consider small-scale hog production for delicious food and reliable income

By Rev. J.D. Hooker

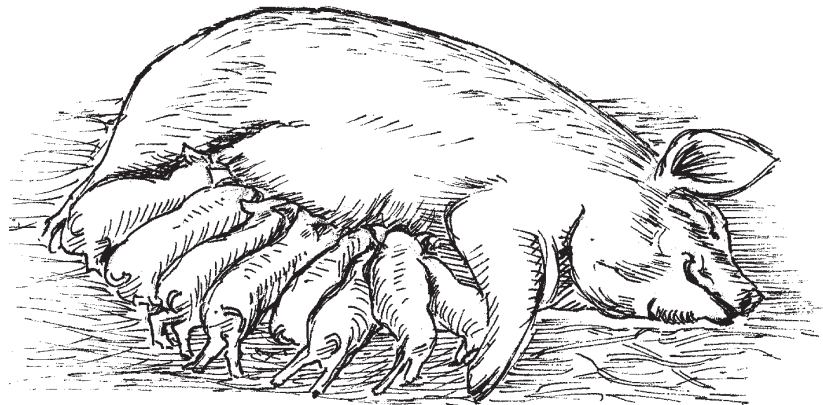
Usually, when someone forms a mental image of a self-sufficient backwoods lifestyle, the idea of raising a few hogs forms part of the picture. Whether we're thinking about the hill folk of Appalachia, the mountain people of the West, or wherever, slabs of smoked bacon, home-cured hams, buckets of homegrown corn, and leftover slops seem to fit right into the picture.

Ever since the founding of Jamestown and Plymouth, the production of pork, both for good home eating and for marketing or trading purposes, has played a crucial role in the personal independence of many of America's rural people. Hogs possess an amazing ability to thrive under conditions where other livestock could not even survive, and they convert nearly any remotely edible waste into high quality meat. Without hogs, not very many southern folk, white or black, would have managed to survive the incredibly hard, lean years in the battered, beaten, and plundered South following our devastating Civil War. Prior to the enforced death-march of their "Long Walk" to the Oklahoma territory, part of the way in which the Cherokee peoples maintained their independence and increased their wealth was that every household raised at least a small swine herd for home butchering and for market.

Advantages of a small-scale operation

Some of you will have seen the ultra-modern factory-style swine production facilities that turn out several thousands of identical market hogs every year. The idea of attempting to

compete with operations of such magnitude may seem impossible. However, you need to understand that the owners of these huge swine operations are virtually slaves to market factors and to their creditors. A single increase in feed costs, a drop in the market price, or a single otherwise-minor disease organism run amuck in their over-crowded pork factories can wipe out several years' worth of profits. The debt load carried by most such operations will often force the owners into bankruptcy after only one such incident, costing them the whole farm.



It's the small-scale pork producer, running between 100 and 500 hogs per year through the market, who might have an unfair advantage. Consider that selling about 110 hogs (no matter what the current price), for a 90%-plus profit will bring you about the same number of spendable dollars as selling 1000 hogs at the more usual 10% profit of the factory hog farm. Keeping a single good boar and five nice-quality sows, raising each litter to an optimum market weight of around 200 pounds per animal, and selling at the average market price will bring you an annual profit in the neighborhood of \$13,500. Should the prices

fluctuate upwards, you'd make even more income. And even if the market took a 50% nose dive, you'd still be able to realize about \$6,750 that year (while a high percentage of factory-style pork producers would go bust). This might be an over-simplification, but you can see how the ultra-low-budget, small-time producer really is the one who has the edge.

Still, while it's potentially lucrative, even such small-scale swine raising isn't something that you'd want to jump into overnight. You'll need to do some homework and preparation before you begin.

Two types of hogs

The first step is to honestly appraise your own temperament and abilities, as well as the physical aspects of your country property. Then decide on the type of hog that you and your property are best fitted to produce. There are many breeds and varieties, and they fall into two major divisions.

First you have the "confinement" type of hogs, like the Duroc, Hampshire, and Yorkshire, that can do well in crowded conditions. They breed, bear, and fatten nicely while fenced and sheltered in a relatively small area. However, they require daily care, feeding, water, etc. These

are possibly the ideal swine for the smaller farm or homestead, not requiring much acreage to bring in a reliable, steady income.

In the other major division are breeds like the Tamworth and Holstein (yes, there are Holstein hogs as well as Holstein cattle). These are capable of producing equally as well as the confinement breeds, while ranging loose in large fenced pastures or woodlots. These breeds require the absolute minimum of care, thriving and fattening quite well on grasses, acorns, roots, and such, which they can forage on their own. They require a much larger homestead acreage for successful production.

None of the confinement breeds do well when attempts are made to raise them under forage-type conditions. Forage-type hogs are equally unsuited for raising under confinement type systems. So this is something that you'll need to decide on before you set up your operation.

Strong and tight

Next you'll need to make a decision regarding what sort of facilities you'll need: shelter, fencing, farrowing huts, etc. This depends a lot on which type of hog you decide to raise. But keep in mind that ***any structure, for any type of hog, has to be both strong and tight.*** An adult hog is an immensely powerful animal, easily capable of breaking through poorly maintained fences or collapsing weak housing. And young pigs and shoats seem to delight in squirming out through the smallest break in any fencing or farrowing house. So whether you opt for wire field fencing or some type of wooden fence, and whatever sort of shelter seems right for your situation, make sure that your original installation is both strong and tight, and then make certain that it stays that way.

Feeding

It's in feeding the hogs where you'll find that the smaller producer has the edge over the factory farmer. It's the relatively high cost of commercial feed that forces these pork factories to work on such a high-volume, low-profit margin system. Sure, these high-dollar rations will normally bring their hogs to market weight much faster than less expensive feeds. But due to the feed costs involved, they usually need to produce *ten* market animals to match the profit realized by lower-volume breeders with a *single* marketable porker.

Many small-scale producers of forage-type hogs find that moving their herd three times a year works out the best for them. Their hogs spend the spring and early summer on mixed grass pasture; the late summer, fall, and sometimes early winter in the woodlot; and the largest share of the winter in the corn, bean, sorghum, or beet field that was planted for them, and left unharvested.

With our own Spot, Poland China, and Yorkshire confinement hogs, and our small operation, we've come up with a feed system that works great for us. We plant a mixture of corn, beans, and sorghum all together. The entire plants—cornstalks, beanstalks, and all—are harvested for feed. During the summer, we also feed a lot of fresh-mown hay or grass, saving the last cutting for winter hay. Also, every sort of garden waste, potato peels, damaged and spoilt tomatoes, wormy or bad apples, etc., is thrown to the hogs. We also feed them thoroughly cooked fish scraps and butchering wastes. To supplement the feed we produce ourselves, we've also found a bakery outlet store that will sell us a pickup load of stale bread, doughnuts, and other out-dated bakery products once a week or so, for next to nothing. This is a really worthwhile super-inexpensive addition for us, and they are happy to receive even a token

payment for this stuff, rather than paying to haul it to the dump.

Such mutually beneficial arrangements are well worth taking the time to find. Other small-scale breeders of confinement-type hogs have found restaurants, doughnut shops, produce wholesalers, supermarkets, farmer's markets, and other businesses whose owners have been happy to save their leftovers, damaged and imperfect produce, etc., for them in return for a token payment. Sometimes establishing such arrangements ends up being the determining factor in deciding the number of hogs your enterprise can support.

Buying your first hogs

As to the animals themselves, once you've determined whether you will be raising confinement- or forage-type swine, you'll need to settle on the particular breed (or breeds) you prefer. There are so many swine breeds (some common, others relatively rare) that this becomes mostly a matter of personal preference. Remember, though, that if there are other swine producers in your area, there will always be some demand for quality breeding stock, so it may be wise to stick with the breeds most popular in your area.

You'll need to select your own original breeding stock as carefully as possible. Check into the records of the producers you purchase your first stock from: litter size and survival rates, early weaning abilities, number of days to marketable weight, feed conversion rates, and related factors are all extremely important. Normally you'll pay quite a bit more for stock with a high production background, but it's well worth the extra cost.

Once our hog shelters, fencing, etc., were ready, and a steady and inexpensive feed supply assured, we were ready to buy our first hogs. Just-weaned shoats (young hogs)—one boar and four or five gilts (young female hogs)—is usually the best

option. Starting out with these small, young animals allowed us to become thoroughly familiar with their care while they were still small and easily managed. We also found that by hand-raising our breeding stock like family pets, we ended up with calm, easily managed adult breeders. As we've continued our operation, all of the swine selected as eventual breeding stock has been handled in the same manner.

This is a method which I recommend highly in any sort of livestock raising endeavor. There will always be unexpected developments, whether it's a difficult birth or a thousand-pound boar on the loose. When these things happen, it's so much simpler and safer to deal with an affectionate beast, rather than an indifferent or belligerent one, that I think it would be foolhardy to use any other method.

Caring for your hogs

You'll need to use wire cutters (diagonal cutters seem to work best) to nip off the razor-sharp needle teeth of newborn piglets, to keep them from injuring their dam while suckling. Sometimes I have tried skipping this step with animals I think I might be keeping for breeders. This is because in our area, we frequently have trouble with feralized dogs attacking livestock. So far, though, I've had pretty poor results, as the mothers usually find those needle teeth too painful. The few successes that I have had, though, have proved that swine with tusks intact can hold off dog attacks.

It's necessary to castrate the young male shoats which you don't intend to keep or sell as breeders. This is a simple, relatively painless procedure, done while the animals are still small. I've found the best tool for this to be a finely-honed sheepsfoot pocket knife blade. I have read directions for attempting this procedure on your own, but I really wouldn't recommend attempting this by yourself on the first try. However, after watching someone

else, whether a veterinarian or an experienced hog farmer, cut a couple of shoats, you'll be able to do it yourself.

Hogs also have a few other needs. Chief among these is plenty of water. In fact, *fresh drinking water is the most important part of a pig's diet.*

They'll also need some way of keeping cool in the summer. Whether that would involve providing some sort of shade, a mud wallow or sprinkler, a creek or ditch flowing through your pasture or woodlot, or some electric fans in the barn, will depend upon your particular circumstances. Too much heat can kill a hog mighty quickly, so you'll need to come up with something.

Winter brings a different set of considerations. Adult hogs that aren't kept in seriously over-crowded conditions can stand an awful lot of severe cold, without any ill effects. *But, drafts can kill them off pretty quickly when they sleep.* Even forage-type hogs need someplace to curl up out of the wind when they sleep. You'll also find that any sort of hog shelter for winter use must either have a dirt floor, where the animals can scoop out a nice comfy nesting hole, or you'll need to furnish a plentiful supply of straw, sawdust, leaves, or other *dry* bedding, at all times.

While forage-type sows usually manage to care for their offspring just fine through weaning, you'll normally find that confinement breeds need a little extra care in this regard. That's because the adult sow can handle cold temperatures, but not heat, so she's constantly standing up, moving around, repositioning herself, and flopping back down in order to remain relatively cool and comfortable. However, *her offspring need to be kept warm all of the time*, and even a minor cooling off can kill them. There is also the constant danger of the sow crushing some of her offspring when she plops back down. There is a simple remedy: just hang an inexpensive heat lamp over one corner of the far-

rowing pen or hut. This supplies a steady source of warmth for the piglets. The small animals will tend to congregate under this heat lamp whenever they're not busy feeding off the sow, while their dam will avoid the discomfort of this added heat. That avoids the danger of her inadvertently crushing the infants.

Marketing

After a while, you'll learn to judge by eye just when your hogs reach the optimum market weight. After that, your only remaining difficulty is in loading the animals into an enclosed truck or trailer and hauling them to market. I've heard of a whole slew of methods for loading these generally reluctant creatures for hauling, and most of them seem to work well enough. But the only means of loading hogs into my truck that I've found satisfactory involves nothing more than a solid ramp with fenced sides and a good, hard-working dog.

If all of this sounds like a lot of hard work, remember that it's not some sort of easy get-rich-quick scheme, but just one method for independent-minded rural folks to provide themselves with a decent, steady, reliable income. It's not nearly as much hard work as all this might sound like, either, but it does require a steady daily routine of care and maintenance. So why not look into your own circumstances and see if this truly traditional slice of American independence can add to your own situation.

And remember the added bonus of providing your own succulent pork roasts, smoked hams, etc., practically *for free* as a side benefit of this profitable endeavor. That served as the final determining factor for us, when we first considered raising swine for profit. We feel as if this result alone, even apart from the income we've earned, has been well worth the effort. I strongly recommend small-scale pork production as one of the ideal backwoods enterprises. Δ

Felting is an ancient art that's still useful today

By Anita Evangelista

There's probably no simpler, more efficient method of turning wool into useful products than felting. Known from samples dating from as early as 6400 B.C., the process hasn't changed in the slightest since those primitive days.

At its best, a section of carefully handled felt can provide amazing warmth even when wet, and is remarkably durable, pliable, and strong. Felt is the ideal boot-liner during the cold of winter, an excellent wind-proof vest material, and is easy to cut and shape into slippers, mittens, handbags, hats, blankets, rugs, and horse saddle pads.

At its simplest, making felt requires nothing more than wool, soap, heat, and movement. Quality felt can be made at home, by hand, with a minimum of tools—most of which are commonly found wherever homesteaders reside. It's highly cost-effective (that is, cheap), and an excellent use of time (fun). Even small children can make usable felt swatches.

Felting is...

Felting takes place in wool nearly spontaneously. It can happen so quickly that most beginning woolworkers accidentally felt a certain quantity of wool in the process of washing it in preparation for spinning. The felted condition comes about in sheep's wool because of the unique "scales" present on individual fibers. When exposed to heat, moisture, and friction, the scales open, hook together, and bind tightly as the wool shrinks.

Some breeds of sheep produce wool that has excellent felting qualities, such as Romneys, Shetlands, Merinos, Karakuls, and Jacobs. While the wool



1. The completed stack of roughly 4"x4" pieces of carded wool.

of more common breeds, such as commercial Dorsets and Suffolks, isn't quite as easy to work with, it still felts sufficiently to make useable projects. Other types of animals, such as camels, llamas, and cashmere goats, produce hair and wool with some felting qualities. A few favorite spinning fibers, like dog or cat hair, angora rabbit, flax, or cotton, simply will *not*

felt—unless they are used in conjunction with a quantity of sheep's wool.

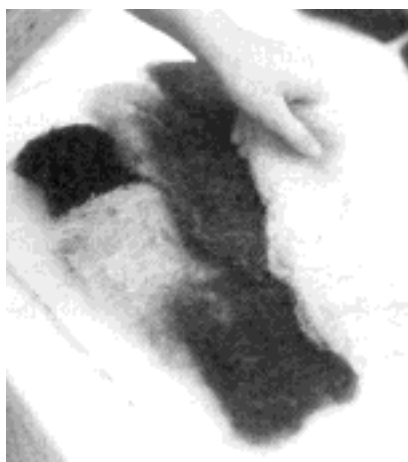
Equipment/preparations

It's possible to make exquisite felt with the most basic of supplies. That's one of the traits that undoubtedly endeared felt to earlier civilizations.

You'll need:

1. Wool. Two pounds of clean fleece will be more than enough to produce a thick square of felt. (I recently made a rectangle 16"x22"x1/4" thick, which weighed only seven ounces.) Any colors can be used, alone or in combination. The amount of wool needed to produce a specific amount of felt will vary with the final thickness of the intended piece, its size, and the type of wool used—something best determined by working experience with your fleeces.

2. Teasing comb, or hand cards, or drum carder. These tools are used to card, or fluff and lighten the wool, and to make it fairly uniform. If you



2. Laying out squares of carded wool to form the first layer.



3. Pouring hot, soapy water over the first two layers.

only wish to work with a small amount of wool for a first experience of felting, you can successfully use dog “flicker” brushes—rectangular flat brushes with bent wire teeth. With a super-clean open fleece, which can be separated lightly by hand alone, carding might not be necessary. But for the first few feltings, carding makes the result more predictable and easier to bring to completion.

3. Soap and water. Homemade lye soaps make excellent felt, if you have any available. I’ve used “Dawn” dish detergent successfully, as well as a combination of “Dawn” and other dish detergents. Some folks use a plant



4. The third and fourth layers are laid over the first two layers. Notice the overlapping pattern.

mister or a laundry sprinkler to make handling the soap solution easier.

4. Washboard or dowel (broom handle, rolling pin, etc). These tools are used for the final agitation of the felt process, called *fulling*.

5. Towels, waterproof flat area, and hot water. A sturdy workplace (even a linoleum floor, or a table shielded with a plastic cover) is a boon—and you’ll need quick access to hot-to-the-touch water and towels for sopping up excess liquid.

Preparing to felt

Preparation for felting means carding up a half to a full pound of wool, separating the carded fibers into flattened sections of about four inches square (make about a hundred of these), heating up a quart of water, adding a half-cup of soap to it, laying down a towel or two on your work area, and assembling the carded wool and water within easy reach.

How to card: Hold one of the hand cards or flicker brushes in your left hand, the handle in your palm and the rectangular brush surface lying against your wrist and forearm. This may feel awkward at first, but it will become very natural after a few uses. Now, using your right hand, place a small quantity of wool against the teeth of the brush, drawing the wool slightly so that it gets caught in the teeth. This is called *charging the card*.

When the card has a thin, fairly even layer of wool on it, pick up the other carder in your right hand. Hold this in your right palm with the brush extended away from you, as you would a hair brush. Now bring the right-hand card against the left-hand card, and lightly draw the right card through the wool in an easy combing motion. Some of the wool will transfer to the right-hand card. Do this several times until the wool is lined up on both cards. Then set down one card and gently remove the wool from the other card by rolling it from one end (it will



5. Pouring hot, soapy water over the final layer of squares

roll easier from one side than the other).

This small, fluffed piece of wool is your first carded piece. Continue to make these, allowing yourself plenty of time.

The process

There are a couple of things to keep in mind as you begin to work the wool: the overlapping nature of the scales on individual fibers, and the importance of working in the same direction (which will be clear in a



6. Pressing and gently rubbing the squares. Notice the soap bubbles beginning to rise around the fingers.



7. After a few minutes of rubbing, the wool has flattened and is beginning to stick together. Note the dirty, soapy runoff, which is a good reason for doing this project outdoors.

moment). Determine how large you would like this piece of felt to be: I would suggest somewhere around 20" by 20"—a random size that's easy to work with. Bear in mind that this sample will shrink a little (10 to 25%) in the felting, so you should make your work larger than you want the finished piece to be.

First, begin to lay down the roughly four-inch-square pieces of wool in



8. Fulling the new felt. The well-rubbed rectangle of felt is rolled onto the rolling pin and worked back and forth several times.

rows, starting at the lower-left-hand corner of your work area. Each piece should overlap the previous one by $\frac{1}{4}$ " to $\frac{1}{2}$ ". When you reach the lower-right-hand corner of your predetermined-size piece, move up and begin a second row. Each square in the second row should overlap the first row, as well as the squares beside it. Continue making overlapping rows until you complete the size sample you wish. In our example, you should have covered an area roughly 20" by 20".

Now cover this first layer with a second layer that is placed in the opposite direction. That is, instead of moving left to right (west to east), place the squares from the furthest upper edge to the closest lower edge (north to south). Remember to overlap each square.

After finishing the second layer, take your hot soapy water and sprinkle liberally onto the felt-to-be. Now add a third layer in the same order as the first; and a fourth layer as you did the second. Wet again. If you have more wool squares, continue making layers,

alternating the direction of each layer. Sprinkle between every two layers.

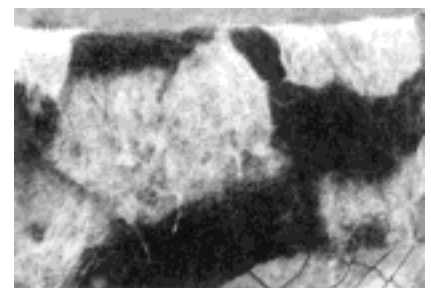
When you've finished sprinkling the final top layer, you're ready to begin the actual felting. Carefully, using the palms of both hands held flat, begin to press and then rub the wool. There may be a tendency for some fibers to adhere to your hands at first, but the soap will eventually discourage that. Rub gently at first, in a circular pattern, always moving your hands in the same direction over a particular section of wool. This helps the minute wool scales to cling tenaciously. If you reverse rubbing directions, it will discourage that clinging action.

After a few minutes of pressing and rubbing, soapy water will work its way up through the wool and out the sides. Pause and use your towels as needed. If the fleece is clean, the water will be, too. Otherwise, it'll be a dirty gray shade. If the wool isn't thoroughly wet, add a few more sprinkles of hot soapy water.

Continue to rub with firm, regular strokes. Carefully turn the sample over after a few minutes, reversing sides now and then. Different wools take differing amounts of time to felt. About 20 to 30 minutes should be plenty of rubbing. The sample will become noticeably firmer and more compact as you work.

When a pinch of the topmost layer resists being pulled upward, the felting is done.

Now roll this still-damp square around the dowel or rolling pin. Then



9. The completed piece of felt, still quite wet, hanging over a fence to dry in the shade.



10. A section of the felt has been cut out of the rectangle to line this slipper.

begin to roll the piece back and forth on a firm surface. This is the *fulling* process. Alternatively, you can gently fold your sample, exposing only a three- or four-inch area, and rub this on a washboard surface. Roll or rub for a few minutes. Unroll and turn the sample piece a quarter-turn, then re-roll on the dowel. Roll it (or rub it on the washboard). Do this from each side of the piece, so that it is worked in all directions. Fulling is now completed.

When you unroll this piece for the final time, you are looking at a section of completed felt. Rinse it in warm water, then in cool water to which you've added a dash of apple cider vinegar. Place it on a clean, dry towel to air dry, or you can pin it to a wooden frame to dry slightly stretched. You can also give this piece a "fleecy" surface by brushing it lightly in one direction after it has dried a little.

Finally...

The uses for felt are legion, particularly when you have a few sample-size pieces around. How about car seat

covers? A baby blanket? Coat liners? Hats?

Some projects will require sewing the felt, of course, so here are a few thoughts on that: Felt can be loose or tight in structure, and that will affect its sewing characteristics. Commercial felt, for example, is very tight, and it will take hand- or machine-sewing, performing very much like leather. Home-made felt *can* be tight enough to sew that way, but if it's too loose, your sewing thread might pull out. If that's a problem, you can start by sewing a line of stitching parallel to the edge of the piece to make the felt more stable at the edge. You can sew pieces together so your thread goes inside the edge stitching. With or without the edge stitching, you might want to use an overhand stitch on pieces that are edge-buttet or overlapped. You might want to use heavy thread. Experiment with different batches of your own felt to see how they take sewing.

Pieces of compact felt can also be glued together. The glued areas won't be as soft as the rest, though, so don't use glue where that would matter

(under the sole of your foot in a boot liner, for example).

Try felting different materials into your wool: mohair, plant fibers, or various designs of differently-colored wool on the outside layers. There is even a trend in textile arts to encompass exotic felted displays, which combine fancy textures, colors, and images.

For those with an artistic bent, this most-common of fibers around the shepherd's homestead can become an effective medium for personal expression. The November/December 1979 issue of *Fiber Arts* (50 College Avenue, Asheville, NC 28801, \$4) is devoted to felt-making and includes many examples of felt-as-fine-art. And be sure to read about Margaret Boos' wonderful hats on another page in this issue of *Backwoods Home Magazine*.

From ancient times into the modern world, sheep and their products have offered more than they take. Felt is just one more part of this ongoing mutually-beneficial relationship. Δ

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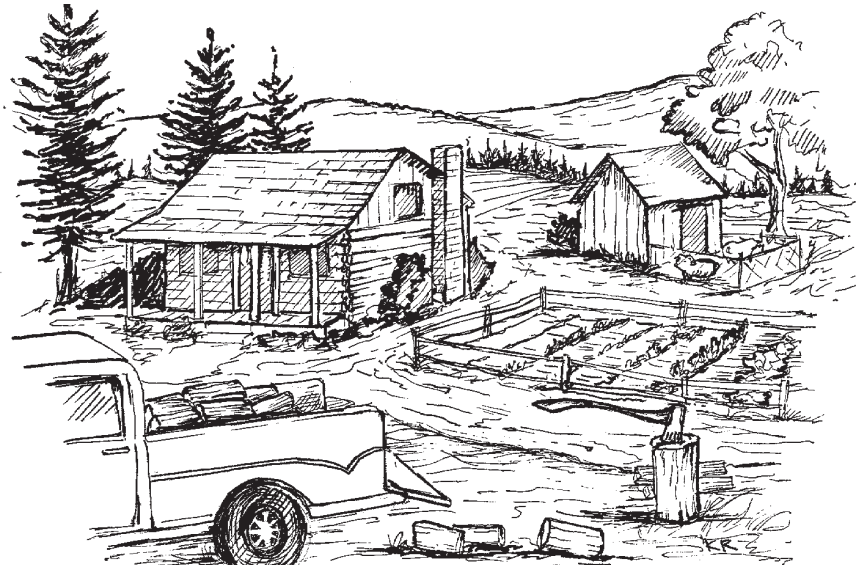
By Dynah Geissal

Making a living in the woods is definitely not an easy task. It requires being constantly on the alert for possibilities. For me, though, there is no other option. I have chosen my way of life and cannot trade it for a job in town even if it would mean more financial security. I spend almost all my time here on my homestead, and still there is never enough time to get everything done.

Neighbors who commute to work leave in the dark and come home in the dark for a good part of the year. They are unable to do as much as they would like to do for themselves, because there is no time. Consequently, they need to buy most everything, and so they always need more money. Add to that the beating their vehicles take on our non-maintained mountain road. It is extremely stressful and frustrating for them, but it is a cycle that is hard to break out of.

To make ends meet without having a “real” job takes ingenuity and a basic attitude change. Leave behind the thinking that asks “what can I buy?” or “whom can I hire?” to solve a certain problem. Instead, make it a habit to brainstorm, experiment, and tinker, or just do the manual labor it takes to get the job done. If you work in town in order to hire someone to work with machinery at your home, who is having the better day? There can be an almost zen-like quality to work that is boring, tedious, and/or labor-intensive that can add more to the spirit than just the completion of the task.

Try to maintain the attitude that you can do whatever needs doing, and set about finding a method to do it. When you have to, ask a neighbor for help.



It's beneficial, of course, to have a partner, and in most cases to eliminate gender roles. Most successful homesteads consist of partners who share the work in most tasks and who each become proficient at whatever needs doing. It is absolutely vital in the case of sickness or injury of one person that the other knows how to run the farm.

Simplify and save

Saving money is about the same as making money, and the best way to do that is to simplify. How much do you really need? The answer is different for different people. Only you can answer this for yourself.

As an example, I think of our power situation. When we bought our land, we thought we would buy a generator to supply our power. A big enough generator could give us plenty of power, so that we would live pretty much as we did “on the grid.” Money for such a generator was never available, though, and now we find that we are quite happy with lights and a radio supplied by sun and wind. In the beginning, we had only kerosene

lamps, and that was OK for a while. As the nights got longer, however, the lamps seemed severely limiting, and our eyes were feeling the strain.

When we got our solar panel, we were able to have two lights, and that was wonderfully liberating. Our nights are so long in the late fall and early winter that we had hated having to huddle around our little lamps for five hours every evening. Now we have four lights, and we feel much richer. To us, light is extremely important for reading, cooking, and other evening projects, and in this case less was not better for us.

So don't be a martyr and give up things you really love. Just consider that some things maybe aren't so important or maybe are just habits that you could be happy without.

Raise extra and sell it

One way to bring in income without changing your life is simply to raise more than you need and sell it. For example, we need two pigs a year for meat, so we raise four and sell two. That gives us our pork for free. Everything you raise should pay for

itself. That's a goal, of course, and it probably won't be achieved right away. Do more of what you already do and sell the surplus. Cut your ten cords of wood and then cut ten more to sell.

Some things work better than others, and there's no way to know which until you try. I can't raise enough chickens to fully supply the market (I raise 800 over the course of a year), yet selling rabbits is very difficult. I always seem to have a surplus. I think rabbits are way easier to raise and are very delicious, but there is a prejudice against eating "bunnies."

Where we live is open range, so getting fences up was very important to us. The range cattle were topping the tree seedlings, destroying the creek bank, and so severely overgrazing the meadow that exotics were taking over. It took six weeks to fence our lower 15 acres, but our only expenses were the nails and the fuel for the chainsaw. We built a jack leg fence, which is beautiful, functional, and cheap. Our nearest neighbor hired us to work on her fence when she saw ours. Every bit of work we can get up here is really appreciated, and helping Sarah was perfect.

Many ways to save

Now I'd like to talk about specifics. Let's start with your **vehicle**. It is vital to have one that can be used for just about everything, which generally means a pickup truck. Having more than one is a luxury we cannot afford. I can't imagine having to license, insure, and maintain a second vehicle. Remember that every dollar you spend is one more you have to earn. You must be able to be your own mechanic. Basically, that means you need an older vehicle. Ours is a '77 Dodge. It's very straightforward, and parts are cheap. (Example: \$35 for an alternator.) When our transmission went out, we replaced it for \$150. A clutch is \$30. A breakdown is not fun, of

course, but with this kind of vehicle, it doesn't threaten our financial stability.

Next is **fuel**. If you live in the woods, you can probably get all the wood you need for heating, cooking, and hot water. You say propane is more convenient? I say, why pay someone else to provide your fuel? It would mean you would have to earn more money to pay someone when you could be working for yourself. Using wood becomes such a part of life that it doesn't seem at all inconvenient to me. It's just part of what I do, like brushing my teeth or feeding the livestock.

Grow your own food—at least as much as you can. We buy grains, beans, oil, and coffee. That's about it. Don't expect to achieve food self sufficiency in one year, but keep working toward it.

Become familiar with **herbs** and make your own medicines. Before I lived in the woods, I found it difficult to find the plants at just the right stage of development, but now I'm always watching and can pick at just the proper time.

Learn as much as you can about **wild foods** in your area. From April till October, I can find edible greens for a meal. In the summer there are mushrooms, and when we run out of onions, there are wild ones to dig. There are always trout in the creek. Add these free-for-the-taking goodies to what we grow, and we don't have to be dependent on the grocery store. We always have milk and eggs and rabbits in the pens plus all the fruits and veggies that we can and dry. In summer we pick strawberries, raspberries, currants, thimbleberries, gooseberries, serviceberries, and huckleberries—all growing wild right here. The surplus is preserved for winter use. In a few hours we can pick all the rose hips we need for a year's supply of vitamin C.

There are many **food items** you may not have thought **to make for your-**

self, but they're quite easy and save greatly on expense, including mayonnaise, ketchup, mustard, horseradish, salsa, hot sauce, seasoned salt, curry powder, and chili powder (although you will probably have to buy some of the ingredients). Being your own baker is a must.

When planning meals, rely on what you have. A recipe that contains one ingredient that you raised—a chicken, say—but requires you to buy a number of other ingredients is not what you're looking for (unless you can substitute with homegrown products).

Trade whenever you can. It helps everyone and feels good, too. Our neighbor Sarah loaned us her two 80-watt solar panels for the six months that she would be spending in Antarctica, where she works. We loaned our 50-watt panel to neighbors Dan and Marlene for the same period of time. They loaned us a DC water pump after they observed us siphoning water from a barrel in the truck up on the hill to our barrel in the house. Life up here is rough, and we love it or we wouldn't be here. Still, the feeling of community among our widely-spaced neighbors is very valuable to us. It's like family in many ways.

Right now we're just beginning to haul logs with our horses. We're hoping it will be another way to make money, but we've only been doing actual log pulling for four days, so we'll see how it goes. Everyone up here needs their blowdown cleaned up as well as house logs hauled, and if we can do it while being easy on the land, it may be just the niche we're looking for.

I hope I have given you some ideas about making a living in the woods or other rural areas. It's not easy, but the tradeoff is that you get to have your life instead of spending most of it working for someone else at a job you'd probably otherwise not choose to do. Δ

Ayoob on firearms

By Massad Ayoob

The price of machismo

In my last column in this space, I talked about the Marlin Model 60 .22 rifle, and about a man who had used one to defend his backwoods home. He stood charged with murder. I promised to tell you how it came out. Well, the good news is, we beat the murder charge. The bad news is, he was convicted of manslaughter. How such a thing could happen is far more important to a rural homeowner than what type of gun he or she might use to defend that home.

The defendant lived in rural Kansas. His home was a former chicken house that he had rebuilt with his own hands using scrap material. He was 69, and he lived there with his common-law wife (a retarded woman in her thirties) and her little girl that he considered his own.

On the night in question, one of his drinking buddies came by, along with another man, both pretty well in the bag. They sat down at the kitchen table and started drinking his beer. The old man joined them in a brew, though he wasn't under the influence. Soon an argument developed between the two visitors, which the homeowner tried to mediate with no effect. The drinking buddy went out of control, yelling and kicking a coffee table against a wall. The homeowner tried to calm the man down, and the guy grabbed him, ripping the buttons off his shirt. The wife tried to calm him down, and the man answered with an obscenity.

The homeowner was a small-statured guy, literally a "little old man." His assailant was in his early 40s, about six foot three, and strongly built. The old man knew he couldn't

control this guy with his bare hands. He went into the bedroom for a gun. During this moment, the huge intruder—and intruder he was, because he had already been asked to leave—took a swing at the man's petite wife.

The old man emerged from the bedroom holding his Marlin .22 pointed at the floor, and ordered the raging giant to leave. It seemed as if he was going to comply. The man turned and went to the door...and suddenly, he was back in the tiny house, lunging at the old man, his eyes on the rifle and his hands reaching for it.

Fearing that the man would wipe out his family if he gained control of the rifle, the old man fired once. The big guy stopped in his tracks, stumbling back and sitting heavily on a coffee table. His drunk friend looked at the old man and asked, "Did you shoot him?"

"Hell, yes, I shot him," the homeowner replied, telling the man to get him to a hospital. The drunken companion did so, helping the wounded man out to his truck. There was no phone in the "home-made home" to call from, so in a short while, the old man drove to the nearest public place with a phone, a tavern/restaurant where the family had stopped to eat earlier and seen the two men who would later come to the house and set the stage for the tragedy. The pair had already returned there, he discovered, and the bartender had already called police and rescue, so he headed home.

The man he shot died later that night. The retarded wife made a statement to police to the effect that the man had been tearing up the house, so her husband shot him. To make a long



Massad Ayoob

story short, he was charged with manslaughter, and the charge was then upped to second degree murder. The prosecutor tried to jack it up again, to first degree murder, but the judge would not allow that.

All was going well in the trial—it was clear-cut self defense—until the defendant took the witness stand. The prosecutor had read him as an independent and stubborn man. He knew what buttons to push. He began an antagonistic cross examination that hit its climax with a question to the effect of, "If I came into your house and kicked a coffee table, would you shoot me, too?" And the frustrated, exasperated old man answered that if the prosecutor was going to do that in his house, he'd better be wearing a bullet-proof vest.

That, as they say, was "all she wrote." After the "Guilty of Manslaughter" verdict, the jurors who were debriefed by the defense lawyers made it clear that once the defendant had threatened on the witness stand to shoot the prosecutor, there wasn't much else they could find in the way of a verdict.

There are lessons here for the sort of people who read *Backwoods Home Magazine*. If you weren't stubborn and independent, you wouldn't be reading *Backwoods Home*. Instead of planning for self-sufficient living (or experiencing it already), you'd be reading *Better Homes and Gardens* or *Architectural Digest*, and if you'd been in the same situation as this poor old guy, you might have been able to tell your butler, "Jeeves, throw this boulder out, and call one of my bodyguards if you need help."

Briefly, the learning points are these:

1) Have some form of communication available in your backwoods home. If the defendant could have called for police assistance on a CB or a ham radio or something as this situation developed, he would have been more clearly seen as the complainant instead of the perpetrator, and the sheriff's deputies might even have gotten there in time to prevent the shooting.

2) Never let a lawyer or anyone else provoke you to the point where you lose control. The old man had spent his adult life working with his hands. The lawyer who cross-examined him had spent his career working with his silver tongue. The old man was on the lawyer's turf now, playing the other man's game. Sentencing isn't complete yet, but I expect the old man will pay several months per word for the angry sentence he uttered when the prosecutor provoked him.

3) Don't invite out-of-control drunks into your house. Isn't that one of the things you left urban America to get away from in the first place? True, the old man didn't know how bad his friend was when he let him in, but he knew the man had a history of drinking and "losing it." He had told him it was OK to stop by when they met at the tavern. That was "the beginning of the end" for him.

The big thing that got the old man sent to prison—"hung by his tongue"—was his angry, threatening outburst on the witness stand. If ever you're

being cross-examined, take it from a denizen of the courts: you're not talking to an advocate whose very job is to disbelieve your truth, you're talking to a dozen people on the jury who have basic, honest, human social values. Don't let a lawyer trick you into saying something that makes you look like you don't share those values, when in fact you do.

If you're interested in this case, I wrote it up for *American Handgunner* magazine as part of my regular feature there called "The Ayoob Files," a series of in-depth studies of shooting incidents. The back-order department of that magazine can be reached toll-free to order a copy at 1-800-537-3006. The case was *State of Kansas v. Willard Grooms*, and at this writing, Will Grooms is behind bars and will be there for some time; the woman he shared his life with has been institutionalized; and their little girl is in a foster home.

Who was it that said, "If we do not learn from history, we are doomed to repeat it"? Δ

A BHM Writer's Profile: Dorothy Ainsworth

Dorothy Ainsworth likes to write for *BHM* because the readers may be people just like her—possibly squeaking by on little more than minimum wage, but with a big desire for shelter, self-sufficiency, and the peace of mind that ultimately comes from being true to oneself.

As a waitress and single mom rearing 2 kids on her own, she fiercely wanted security without being beholden to anyone. At 40, with no previous building experience, she bought a piece of land with a farm loan, read stacks of how-to books, and started in. Her most powerful resource was drive. On a shoestring income she learned to use any cheap or free natural materials she could get her calloused hands on. "With logs, stones, straw, and mud, an energetic person with imagination and research, can create a home with his or her artistic signature in every touch."

Any discomforts of living on the barest necessities for a while were totally offset by indescribable feelings of fulfillment that came from everyday accomplishments.

Dorothy is now 54 and has 10 structures under her carpenter's belt: pump-house, water storage tank, root cellar, barn, shop, storage building, small guest cabin, piano studio, and 2 log homes (rebuilt main house that burned). The average cost was \$15/sq. ft. and except for her land payment she's debt free. Tunnel vision paid off and the journey was so worth it.

Her future plans include writing a waitress book about her humorous experiences serving over 1 million people in 38 years. Also she hopes to find time to indulge in her life long hobby and first love—photography. Meanwhile she's in the process of editing the videotapes she took of building the original house.



You can make extra money as a stringer

By Robert L. Williams

Several years ago, I found that each month I needed a little—or a lot—of extra money. I was already working full-time and had erratic hours, so if I found part-time work, I had to do it all around the clock. Very few potential employers would even talk to me about hours early in the morning one day and late at night the next.

Then I picked up a newspaper and saw a byline with the notation under the writer's name, "Special to the Observer." This tiny message told me that the newspaper was buying a special article now and then from off the beaten track. Because we lived far out of town, we qualified for the off-the-beaten-track part of the work.

I called the state editor of the paper, told him what I'd like to do, and suggested a few stories. He agreed immediately to look at a story on one of my topics, so I did the interview, took a few photos, and wrote the story. I mailed it to the editor a day or so later, and almost immediately the story and a photo appeared in the paper.

That first article was about a karate expert who was also an accomplished cook, a seamster who made his own clothing, a gardener, a painter of excellent landscapes, and a college student. (More about this later.) The newspaper paid me \$40 for what amounted to about five hours of work. I figured I could afford to work for \$8 per hour, and I set about finding other stories.

Several stories in one day

What I quickly learned was that I could locate three or four stories in one area, and with one trip I could triple my income for the stringer work.

A stringer, by the way, is someone who is not employed full-time by a newspaper, but who writes on a semi-regular basis and has none of the perks offered by the paper.

By doing three or four stories on each trip, I could earn as much as \$120 for about eight hours of work. I was now up from \$8 to \$15 per hour. Eventually I worked my way up to five to eight stories in a single morning. That is, I did the interviews and photos. Later I wrote the stories and prepared the photo captions.

Sell a story more than once

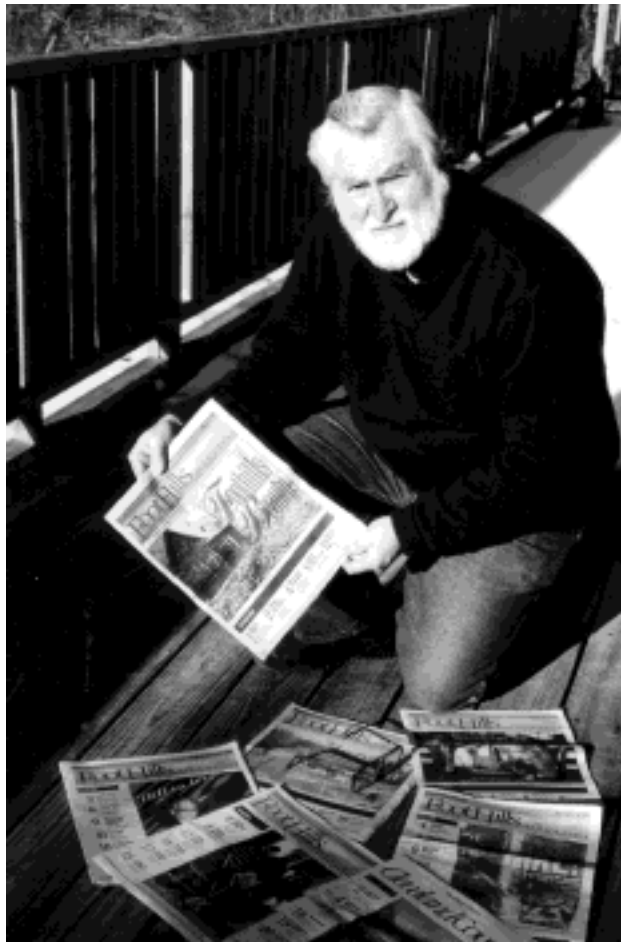
Then even greater dividends began to take shape.

Remember the karate expert? He brought me copies of a magazine one day and asked if I thought his story merited space in one of the publications. I used the same photos (I always took more than I needed, just in case other opportunities arose), and I modified the story only slightly and sent it in.

I sold the story for \$100 the first time, then for \$150, and then for \$350. I had now earned \$640 for a total of about 12 hours of work. I was now earning more than \$50 per hour.

In one issue of a newspaper special section, the type of publication referred to as "neighborhood journalism," I placed 11 articles at \$80 each. That's \$880 for about 20 hours of work. But it gets much better than this.

I did a story one morning and sold it to the paper. Then I sent it to a series of magazines. Understand that this was not a story of aliens kidnapping Elvis who had just captured a bigfoot at a reunion of James Dean, John Kennedy, and Jesse James. This was a rather commonplace photo and story.



The author is shown with several issues of Foothills Magazine. He did the cover photos for each issue, and the combined issues, with stories by him, resulted in a part-time income of about \$4,500 over a period of four months. Total time invested was less than 40 hours.

I eventually sold the story for, in succession, \$40, \$45, \$150, \$150, \$250, \$300, \$480, \$850, \$500, \$175, and \$550. And that was just the beginning. A total of almost \$3000 for one basic story, at that point. I had invested no more than 15 hours in the entire photo layout, and I realized an income of about \$196 per hour.

Once you have written the story, have it understood with the editor of the paper that you have the right to sell the story again and again, as long as you don't abuse the legal rights of either publication.

Then sell it to tabloids, regional magazines, and anyone else who will buy it. I sold my story about the 73¢ house 28 times, and always for a nice sum. When our own house was destroyed by a tornado and we built our new house with a chain saw and little else, I wrote the story of how we constructed the house for a fantastically low price. In the months that followed, I actually paid for the cost of the house by articles written about the house. The house is now valued at more than \$200,000, but it didn't cost us anything close to that figure.

A word of warning: when you sell the story, ask the editor for permission to re-sell it. Then tell the new buyer where the story appeared earlier. Then ask him for re-print rights, and tell the third buyer where the story has appeared before. Keep on doing this and get it in writing, and you will likely stay out of difficulties.

Where do you find good stories?

The first question I am always asked when I speak to a group is, Where do I find good stories? My reply is, "Where can you go *without* finding good stories? They are all around us." I then offer a small wager that among the members of that club I can find a dozen publishable stories. After the speech, I talk with members and win my bet. I also find my next dozen articles.

The next question is, what makes a good story? My answer is, "Whatever reaches the heart, the brain, the funny-bone, or the wallet." For example, touch your readers with a tender story of an 87-year-old woman who built her own house and chimneys, made her own furniture, painted the murals over the fireplaces, and did her own landscaping. I did such a story.

Or the story of a woman who lost both legs to cancer and then refused to accept welfare money, despite her poverty. She insisted that she could find work and support herself—and she did.

Show and tell the readers how they can make money (which is what this article is intended to do), save money (which is what many of my other articles in *Backwoods Home Magazine* do), amuse them with incredible but true stories that bring a smile and warm the heart, stimulate and challenge the reader intellectually, inform



The author's son Robert, age 19, is shown holding a copy of Foothills Magazine which recently ran his square-split firewood story (after Backwoods Home Magazine had run it). Two paychecks are almost always better than one.

him on matters that will help him now or later.

If you want to test the waters for a story, when you run across an interesting situation, tell a friend or family member about it. Share it with neighbors, students, etc. If they genuinely like the story, write it up and simply tell the story in print to readers.

Become a superior listener. When someone is telling you about his grandson who is playing the violin with a special orchestra, ask how old the grandchild is. You learn that he is only five years old, and you have a story.

As you drive, remain alert for something that catches your eye: a huge two-story house being moved, a blind person who takes photos, a 112-year-old preacher, a three-year-old professional photographer, a blacksmith still plying his trade. You might find a story in a survivor of a long-ago war, a woman who knew Thomas Edison personally, natural phenomena, people who fight back from devastating tragedies, a paralyzed person who types by using a straw held in his mouth, or a man whose hobby reaches around the world. All of the above are stories that I did within a few days of each other. The stories are everywhere.

Photo tips

One day I was driving to my regular job when I saw a superior photo opportunity and took the shot. The newspaper then began to buy what they called "wild photos" from me. These are photos without a story—or rather, the photo tells the entire story.

And of course photos will help you sell the stories you write.

If you can afford one of the throw-away cameras, you can take acceptable photos, but it's obvious that with a better camera you have a greater range of opportunities. My first suggestion is that if money is scarce, buy a cheap camera, then save all of your

writing money until you can buy a better camera.

There are superior cameras on the market for under \$500. You can buy an excellent used camera for much less, but have a camera instructor check out the camera for you before you invest too much in a used one. You can also rent cameras, but several rentals will go a long way toward the purchase price of a good camera.

When you take the photos, always ask first for permission, unless you are on the scene of a spectacle that will be covered by the media. Never, never trespass onto private property, and never shove a camera into a person's face without asking first.

When you shoot the photos, try to imagine the photo in print and cut out all unwanted elements. Don't have a tree growing out of a man's head, and don't snap the subject when he is picking his nose or scratching the south forty.

Don't invest in a darkroom. Use color print film and take the exposed rolls to Wal-Mart or other stores where there is a one-hour service. Go eat lunch while the film is being processed, and then pick it up and pay the \$7 or so for the service. You can't develop and print your own photos at that price.

Write a good lead

When you write the story, work for an interesting lead, called a *hook*. This sentence is intended to capture the reader's attention instantly and keep it. Look at this lead, which was the hook in one of the first stories I ever wrote.

"On December 7, 1815, Marshal Michel Ney was executed by a firing squad composed of his own men. Death was instant, the result of eight wounds in the chest, three in the head, and one in the right arm. He was buried the following morning just outside Paris, and six months later he was teaching school in a small town in North Carolina." Will editors want to



Elizabeth Williams does a community calendar and a church news column for each issue of Foothills Magazine. She never leaves the house to do the work, and she earns about \$300 per month for the effort. If she goes out to do feature stories, she can make an additional \$80 to \$160 per month.

read on? Several did, and this story, which I found in an old graveyard, earned me close to \$800 for about six hours of work.

The story is perfectly true, with a bizarre twist, just like the story about the peaceful man who lived in a tiny town near my home years ago. He confessed on his deathbed that he was the infamous pirate Jean Lafitte, thought to have died long ago in Texas.

When you research the stories, ask more questions than you can possibly use. It's far better to cut out material than it is to try to stretch a few facts into a long narration. For example, in this story I cut the material about the Bigfoot that lived in our area for a while and was spotted by preachers, bankers, housewives, businessmen, and children.

You have probably noticed that many newspaper have Sunday supplements written by a small staff of writers. This is more of the Neighborhood Journalism movement. In our area the special Sunday section is called *Foothills Magazine*. I have written freelance articles for that publication since it started four years ago, and to date I have had at least one story in all but three issues. At times I have had

six or more articles, each at \$80 or more per story. If your area newspaper has such a supplement, ask about writing for the paper. If it does not have one, ask if they are considering starting one.

All over this country there are newspapers that will buy occasional or frequent stories. All you have to do is make the proper contacts, sharpen your writing and photo skills, and locate the right stories.

Good luck, Tiger. The stories are out there. Go get them. If you don't, I will. Δ

A BHM Staff Profile:

Ron Graham



Ron Graham is the Operations Manager and Advertising Manager for *Backwoods Home Magazine*. As Operations manager he supervises overall operations of the magazine, making sure the magazine runs efficiently, orders get processed quickly, employees know their jobs, and that things like safety and courtesy are observed.

As Advertising Manager he deals with advertisers to make sure their needs are met. He can sometimes be seen at the various trade shows the magazine attends, soliciting advertisers and generally selling the public on the value of the magazine.

He has 20 years of management experience in various phases of manufacturing and distribution operations. His hobbies are woodworking and motorcycles.

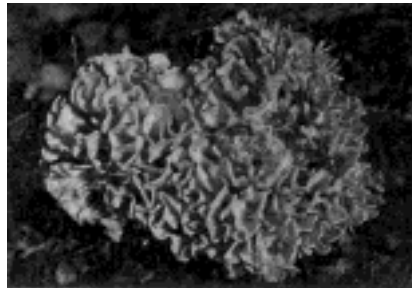
His wife, Nathele, also works at the magazine as an editorial assistant, and their daughter, Amanda, 9, can often be found playing with the Duffy children at the magazine.

Forage for wood lettuce and ground coral and you can spice up your outdoor eating

By Branley Allan Branson

Startling and spectacular moments in the woods do not always involve encounters with wild animals. Consider wood lettuce and ground corals. Unlike their namesake counterparts of the garden and sea, both these life forms are rather strange and curious-looking fungi. They grow in long-established woodlands throughout eastern North America, though there are many western representatives, too. These fungi become particularly well-developed in mid-summer and continue to multiply through early fall.

Wood lettuce, or cauliflower mushrooms, as they are also called, always startle campers when they encounter them. Only two species occur in all of North America, one in the east (the Latin sobriquet is *Sparassis crispa*) and one in the west (*S. radicata*). Many species also live in Central and South America, and in Europe and Asia, where they are staple food items. The eastern wood lettuce grows at the base of hardwood and pine trees, since it is a parasite on their roots, and appears in such places year after year. This fungus, often up to two feet across and half that in height, consists of myriad flattened, wavy, folded, curled, and crimped leaf-like parts arranged in a rosette. In color, the mushroom is strongly reminiscent of a collection of pale whitish-yellow egg noodles waiting for a cook. There is no root-like part, and in young specimens the leaf-like parts may be so tightly convoluted that the mushroom looks like a brain rather than like a head of lettuce or cauliflower. Most specimens weigh between one and five pounds, but exceptionally large ones may go as high as twenty pounds. The western species, which has a distinctive tapering rootlike part



Wood lettuce, or cauliflower mushrooms (Sparassis crispa) are edible, weird-looking forest floor plants that startle first-time observers.

buried in the ground, sometimes weighs as much as fifty pounds.

Wood lettuce bears little if any resemblance to any other mushroom in America, hence is easily identified. That is a lucky fact, for *Sparassis* is an edible species. A single specimen can feed a family of five or more, and the keeping qualities are exceptional. Under refrigeration, specimens may be retained for more than a week. *Sparassis* is a very fragrant and flavorful mushroom, but it must be cut into pieces, washed, and thoroughly cooked to remove toughness. I have found it best to parboil the pieces until they are tender, then gently sauté them in lightly salted butter until golden brown. However, large specimens may be parboiled then baked at 450° until golden-brown and tender. Wood lettuce is a perfect dish to accompany a pot roast or leg of lamb.

Wood lettuce is particularly abundant (in late July through early October) in the forests along the Blue Ridge Parkway in Virginia, and in most forests of North Carolina, Tennessee, and Kentucky. I have also found large specimens in southern Illinois and Indiana, and in the Finger Lakes region of New York.

Another delightful camping event occurs when one encounters coral fungi. These fantastic fungi occur

throughout America, especially from mid-July through first frost. As the name implies, these often colorful fungi strongly resemble sea corals in shape. They consist of many upright branches that arise from a fleshy common stalk. Colors range from whitish through tan, yellows, pinks, and greenish to brilliant orange. Many of the small species grow directly on decaying logs, whereas the larger fleshy species grow on lignin-rich ground under trees. All of them are beautiful in their woodland settings, and many of them are favorites for the table. Since there are so many species of coral fungi in America, we shall only discuss a few representatives for introduction purposes.

One of these is the common crown coral (*Clavicornia pyxidata*). This three-inch wide, four-to five-inch tall species is one of the few larger corals that grow directly on decaying wood. In the west, this fungus grows most commonly on aspens, willows, and cottonwoods, whereas in the eastern U.S. it is frequently found on dead oaks, maples, and sycamores.

The crown coral produces many branches from a common base, usually in several tiers. The tips of the branches are enlarged into crown-like cups or fringes. Only one other wood-growing coral has these peculiar crowns, a grayish-brown western



The crown-tipped coral (Clavicornia pyxidata) has many upright, brittle branches that end in crown-like tufts.

species (*C. avellanea*) that grows on rotting conifer logs. The crown coral is whitish to pale yellow.

Like many other coral fungi, the crown coral is edible, but it tends to be stringy and tough, even after parboiling. However, because of its distinctive peppery taste, it makes an excellent addition to pot roasts and full-bodied soups. A hunting associate of mine uses it as an ingredient in venison stew.

One of the most common and widespread species in North America, the pinkish coral mushroom (*Ramaria formosa*) is a beautiful fungus that always elicits delight when found growing on the ground in the vicinity of conifer trees. It is a fairly large species, up to seven inches across and high, with multiple upright branches that are often grooved. The thick base is white close to the ground, colored like the branches above that, and tapers downward. The branches vary from light pink to pinkish-orange, salmon-orange, tan to reddish. The tips of the branches are yellow, regardless of overall coloration. When bruised or scratched, the flesh slowly turns brownish. The flesh never has a gelatinous consistency, but is always firm to rather tough. *This is not considered to be an edible fungus* because it has a tendency to produce cathartic effects when ingested.

There are many other species of *Ramaria* corals in North America, and most of them are very attractive. Some of them, such as the red coral mushroom (*R. araiospora*) are brilliantly



The pinkish coral (Ramaria formosa), usually growing in the vicinity of conifers, causes sickness if ingested



A beautiful woodland species, the jellied false coral (Tremellodendron pallidum) has flattened, rubbery branches.

red, resembling sea corals even more closely than the species we have already discussed. Other species, like the yellow coral mushroom (*R. rasilispora*) are brilliant yellow to saffron yellow. Some of these species dry very well and make interesting additions to dry arrangements in the camper.

Finally, several species of the jelly fungi often strongly resemble true coral fungi. Jelly fungi, as that name implies, are composed of gelatinous

bodies that may be soft and jelly-like or stiff and rubbery to the touch. Some species are brightly colored, oranges and yellows predominating, but the jellied false coral (*Tremellodendron pallidum*), which strongly resembles true coral fungi, is pure white to dirty white. The multiple upright branches are flattened and rubber-like, in sharp contrast with those of the true corals, which are brittle. Colonies are around six inches across and two to four inches in height, growing on the ground in hardwood or mixed-wood forests.

Several of the jelly fungi are edible, and the jellied false coral is one of them. It is best used as an ingredient in soups and Chinese dishes.

Wooded areas surrounding campgrounds nearly always have interesting contributions to make to camping. Some of those contributions are curious, others are downright bizarre. Topping the list of the latter category are the species of wood lettuce and ground coral fungi. Δ

A working country moment



Rich Perrigo of Montague, California, uses a Wood-Mizer sawmill to cut a pine log into timber.

Perfect whole wheat breads ... some troubleshooting ideas

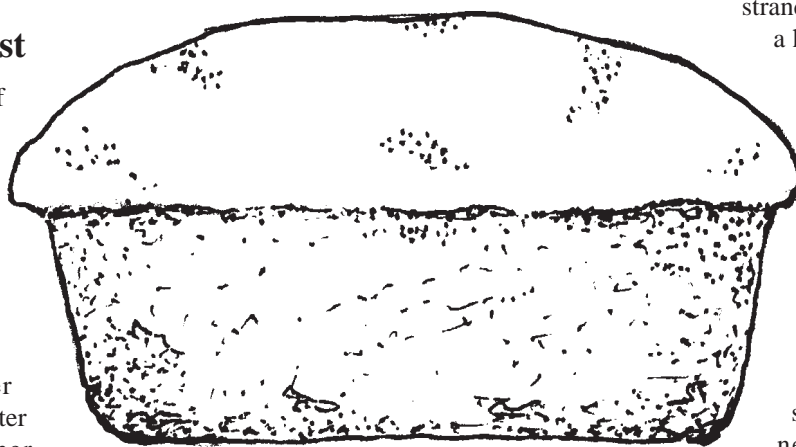
By Jennifer Stein Barker

Many people consider making bread to be a daunting task: they are afraid of fallen loaves, doughy centers, or bread that stubbornly refuses to rise at all. Others have perhaps been making bread for a while, but can't figure out why the loaves come out with an uneven texture or a hole in the middle.

A perfect wholegrain loaf is not an impossible dream. Bread making is both an art and a science. Flours and doughs react in normal and predictable ways, and learning the science of breadmaking will help you be at ease as you perfect the art of creating beautiful bread. Here are a few tips gleaned from years of experimentation that will demystify the yeast loaf. Following them is a troubleshooting section for those perplexing problems, and then some excellent recipes. Above all, remember these two things: yeast is alive, and the dough is your friend.

Proofing the yeast

A sure way to know if your yeast is really alive, and to nurture its growth, is to *proof* it. For proofing, use the amount of water, yeast, and honey called for in the recipe you're making. Measure out the water into a bowl. Test the water temperature with a thermometer or your hand. It should feel pleasantly warm to the touch, about 100°. Yeast likes to have the same friendly body temperature that you do in order to grow and multiply. The multiplication of the yeast produces carbon dioxide gas as a by-product, which makes the bread *rise* because the gas is trapped in the loaf. Sprinkle the yeast over the warm water and let it sit for a few minutes. Then stir gently to dissolve it completely, add the honey (to feed the yeast), and dissolve that. Let the cup sit in a warm place until the contents foam up, about 10 minutes. You have now given your yeast a good start in life.



Making dough

Gluten is what holds the dough together and traps the carbon dioxide in little pockets. Wheat is the grain with the most gluten, and *hard* wheats have more gluten than *soft* wheats (soft wheat is used to make pastry flour, because it does not have enough gluten to become "tough"). So look for flour marked "bread flour," which is made from high-gluten wheat. If you can't find whole wheat bread flour, or if your bread recipe has a high proportion of some low-gluten grain like rye, you may add what is called *gluten flour* (a highly refined product) in the proportion of one tablespoon per cup, to increase the gluten content. This refined gluten flour is not necessary to bake bread: it will simply make your bread rise higher.

Add the flour to your dough a cup at a time, beating well.

When you have a soft dough, beat air into it until it forms strands between the spoon and the bowl (these are gluten strands). Continue adding flour a half-cup at a time until the dough forms into a ball and pulls away from the sides of the bowl. The dough is now ready for kneading.

Kneading

Sprinkle a layer of flour over your counter, and have your flour source handy in case you need more. Turn out the dough onto the floured surface. To knead, push the heels of your hands into the dough, then fold it over at the crease. Rotate the dough a quarter-turn, and repeat. Remember, the dough is your friend. Knead it vigorously and joyously, and it will respond. Do not beat, pummel, or otherwise torture your friend. When it is ready to be put to rise, after 5 to 15 minutes of kneading, it will fold over with a smooth and satiny stretch, and it will spring back with great life from any impression. Lay the dough in a clean, oiled bowl, turn it so the oiled surface is on the top, cover it with a cloth, and set it in a warm, draft-free place to rise.

The baking

The dough is ready to form into loaves when it has risen to double its original bulk. If you don't have time to deal with it right now, or if you want a loaf with a finer texture, letting it rise again may be advantageous.

Slap the risen dough vigorously with the flat of your hand. The air will hiss out and the dough will subside into the bottom of the bowl. Let it "rest" for a minute or two. If you're letting it rise again, just re-cover it and put it back in the warm place. To shape the loaves, turn the dough out onto a smooth surface. I just let the oil from the dough coat the surface, but if this doesn't work for you, you may have to get out the flour again, and flour the surface. Divide the dough into two (or more) parts, and work each into loaf shape: flatten the dough with your hands and work all of the air out of it. Roll, fold, pat, and otherwise shape it to fit your loaf pans. I find the baked loaves come free of the pans better if I oil them *lightly*.

Cover the loaves and put them back into your warm place to rise the final time. They are ready to be baked when the dough has doubled in bulk (make note of the original bulk when you set it in the pans), and feels soft and giving when gently poked. Make sure your oven is preheated.

At the end of the specified baking time, check your loaves. The crust should be a lovely golden brown. Turn one out of the pan and tap it on the bottom. If it sounds hollow, it's done. If you hear a dull "thud," put it back in the pan and back in the oven for another 7 to 10 minutes. Cover the loaf with a loose foil cap if necessary to keep it from browning too much.

About salt

You can leave salt completely out of your bread if you wish. I find that in my sourdough breads, neither the flavor nor the rising suffers at all. In my sweet dough breads, however (such as oatmeal bread, recipe below), if I leave out all the salt, I get great big holes in the centers of my loaves. Now, I live at 5000' elevation. I tried leaving out the salt at 1000' elevation, and it worked just fine. You'll have to experiment for yourself and see how much salt you need for your tastes and your rising. If you're on a salt-free diet and don't like the holes in your bread, try letting the dough rise less.

Troubleshooting

Bread molds or sours quickly (in two days or less): You must keep your bread in the refrigerator if you have this problem, or use more of a preservative-type ingredient (salt or vinegar). Use $\frac{1}{2}$ to 1 teaspoon salt per loaf (if you omit-

ted salt), or add 1 teaspoon mild vinegar (such as rice vinegar) per loaf to the wet ingredients.

Texture is uneven (air bubbles are bigger towards the top of the loaf, bread is denser at the bottom): You need to knead the dough longer. If the gluten is not fully developed, it will not adequately entrap the air bubbles and they will tend to rise towards the top of the loaf. Knead wholegrain doughs at least 7 to 10 minutes, until the dough is springy and smooth and does not stick to your hands or the board.

Big hole(s) in the center of the loaf: See "About salt" above. Also, try adjusting the ratio of sweetener in your loaf. If you already have salt in your dough, the problem could be too much sugar or honey.

Dough sticks to hands when kneading: First, try beating the dough well when you have only added a portion of the flour. This will develop the gluten before you ever have to get your hands in it. (People with wrist problems, take note: this can substitute for part or all of the kneading.) Then knead with cool hands and a firm stroke. Make it like a dance, and you will find the bread responding without sticking. If my dough sticks in the early part of the kneading, I rub my hands together to roll the sticky stuff off, and dip them in flour to begin again.

Flat-topped loaves: Your dough was allowed to rise too much before being baked. Try this test to see if the loaves are "just right" before you slide them into the oven: poke a loaf gently with a fingertip. The dough should be springy and lively, but a small depression will remain where you touched it. If a deep dimple forms, your dough is over-risen. You can still bake the loaves and they may not fall, but you may also choose to remove them from the pans and re-form the loaves. They will rise again just fine, and this will not hurt them at all. See also "Making dough" above (the discussion of pastry vs. bread flours). Your dough may not have enough gluten to trap the air inside.

Now let's move on to some bread recipes.

Basic whole wheat bread

This is a great all-purpose bread for beginners or anyone. This bread is wonderful for sandwiches, toasting, and goes equally well with sweet jams or savory spreads. Makes two loaves.

3 cups warm water
1 Tbsp. honey
1 Tbsp. dry yeast
$\frac{1}{4}$ cup oil
$\frac{1}{4}$ cup honey
1 tsp. salt
6 - 7 cups whole wheat flour

In a large bowl, proof the yeast with the warm water and the 1 Tbsp. honey. When the yeast has foamed up, measure in the oil, honey, salt, and enough of the flour to make a thick batter/thin dough. Beat vigorously until the dough forms long elastic strands. Add more flour, $\frac{1}{2}$ cup at a time, until the dough is too stiff to stir.

Turn the dough out onto a floured board and knead for at least seven minutes, adding more flour as necessary, until it is smooth and springy. Place the dough in an oiled bowl, turn the oiled side up, cover and place in a warm spot. Let rise until doubled in bulk. Punch down, and let the dough rise a second time, if you have time.

Form the dough into two loaves and place in lightly oiled pans. Cover and let rise until double. Bake in a preheated 350° oven for 40 to 45 minutes, until the loaves test done.

Oatmeal bread

This bread has a lovely texture and a sweet flavor due to the oatmeal. If you want more tender oats, use hotter soaking water; for chewy oats, use cooler. Makes two loaves.

2 cups old-fashioned rolled oats
2 cups hot tap water (120 - 130°)
 $\frac{3}{4}$ cup lukewarm water
1 Tbsp. dry yeast
1 tsp. honey
 $\frac{1}{4}$ cup oil
2 Tbsp. honey
2 Tbsp. molasses
1 tsp. salt
2 Tbsp. gluten flour (optional)
about 5 cups whole wheat bread flour

In your bread bowl, stir together the oats and hot water. Let soak for 10 minutes.

In a two-cup measure, dissolve the yeast and the teaspoon of honey in the $\frac{3}{4}$ cup warm water. Let sit for 10 minutes or until it foams up.

Add the oil, honey, molasses, and salt to the oat mixture. Stir in the proofed yeast. Mix the gluten flour with the first two cups of bread flour. Beat the flour well into the oat mixture until the dough begins to form strands. Add more bread flour $\frac{1}{2}$ cup at a time until the dough becomes too stiff to stir.

Turn the dough out onto a floured board, and knead at least seven minutes, adding more flour as needed to prevent sticking. This dough will remain just a little sticky. Place dough in an oiled bowl, turn to oil all sides, cover, and let rise until double.

Turn dough out and form into two loaves. Place in two oiled 5x9" loaf pans and let rise until double. Preheat the

oven to 350°, and bake the loaves until they are golden brown on top and sound hollow when tapped on the bottom (about 35 to 40 minutes).

Remove the loaves from the pans and cool on a wire rack. When thoroughly cooled, they may be stored in an airtight place or wrapped and frozen.

Sesame ring

This hearty sesame bread perfectly complements Mediterranean or Middle Eastern food. Makes one ring-shaped loaf.

1 Tbsp. yeast
 $1\frac{1}{4}$ cups lukewarm water
1 tsp. honey
1 egg
2 Tbsp. oil
1 tsp. dark sesame oil
 $\frac{1}{2}$ tsp. salt
4 to 5 cups whole wheat bread flour
1 egg yolk
2 Tbsp. raw sesame seeds

Proof the yeast with the honey in the warm water. When the yeast foams, add the egg, oil, dark sesame oil, and salt. Beat in two cups of the whole wheat bread flour. Continue beating vigorously until the batter is smooth and elastic. Then add more flour $\frac{1}{2}$ cup at a time until the dough is stiff enough to knead.

Turn the dough out onto a lightly floured board and knead until it is very elastic and smooth (about five to seven minutes), adding flour to the board as necessary to keep the dough from sticking. When the dough is smooth and lively, springing back vigorously from any impression, place it in an oiled bowl, turning once so the oiled surface is on top. Cover the bowl and set it in a warm place to rise until doubled in size, about an hour.

Punch down the dough and let it rest in the bowl for a minute, then knead a few times and form it into a smooth ball. Working your fingers through the center of the ball, pull and work the dough into a ring. Place the ring in an oiled pan (I like to use an oval casserole) which leaves room for the dough to expand. Cover the ring and let rise until doubled in size.

Preheat the oven to 375°. Brush the top of the ring gently with beaten egg yolk. Sprinkle the top of the ring with a layer of raw sesame seeds. Bake for about 50 minutes, or until the ring is golden-brown on top and sounds hollow when removed from the pan and tapped on the bottom. Δ



Think of it this way...

By John Silveira

Want proof of luck, ESP, and psychic powers?

We were riding down the Pacific Coast Highway—Mac, his girlfriend Carol, and I. Mac's the poker playing friend of Dave Duffy, the fellow who publishes this magazine. Mac and I have taken to palling around the last few years and on this particular afternoon, he and Carol had invited me to go along with them to a party her cousin was throwing in Malibu.

Mac drove with Carol beside him and me in the backseat. I was thinking about how he makes his living as a poker player.

I suddenly leaned forward and asked, "Do you believe in luck, Mac?"

"Do you mean as in good luck, bad luck, runs of luck, that some people are just plain lucky because they're blessed with it and others are doomed to be unlucky all their lives? Like it's some kind of metaphysical force?"

"Yeah."

"No."

"Really? The way you make your living, I would have thought you did."

He shook his head.

"I just thought all gamblers believed in luck," I said

"Quite a few do."

"How do you explain someone winning the lottery or a night when you get a good run of cards?" I asked.

"Well, in the first case, if you want to call someone who's just won the lottery lucky, you're using it as a descriptive word. It's like calling them rich. But if you're using it as a verb, as if some force called luck brought it about, no, I don't believe in that.

"As for the way I make my living, I don't win because I'm lucky. I win because I learned how to play the game well and I have the discipline to stick to the rules I've set out for myself. On a particular night, I may

do a lot better or a lot worse than I ordinarily would, because of the random nature of the hands my opponents and I get. But that's just the way things happen."

"Do you believe in things like ESP?"

I saw him look at me in the rearview mirror. "No."

"You don't?"

"If it exists, no one's ever provided reliable evidence of it. Given all the people who say they have it or have witnessed it, I would have thought it would have been demonstrated to the satisfaction of science a long time ago."

"What about those guys like Uri Geller and others like him I've read about or seen on TV. How do you explain them?"

"Have you ever heard of a guy named James Randi?"

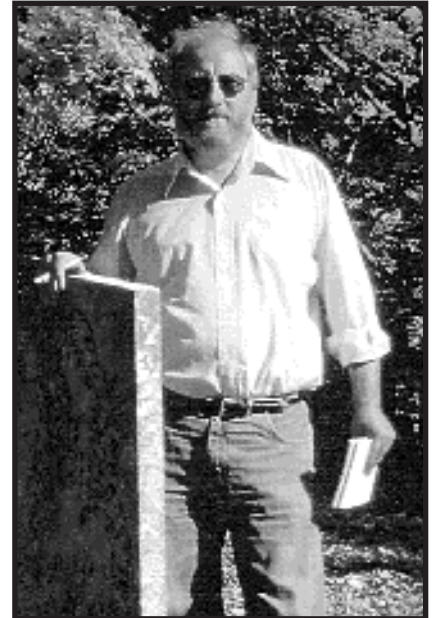
Looking in the rearview mirror, he could see the puzzled look on my face. "He bills himself as 'The Amazing Randi,'" he added

"The name's familiar."

"He's a magician. But he's best known for exposing psychics. Show him a feat that any of the psychics claim to perform by using supernatural powers, and he'll do the same stunt using nothing but the magic stuff he's learned over the years. Card tricks, mind reading, bending spoons, or whatever; he'll do them all, but he'll do them without claiming to use any psychic powers, only deception and sleight of hand."

"So what?"

"Well, if I know that a professional stage magician can do what these psychics do, why should I accept the explanation that psychic powers are involved, particularly when what



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they're doing amounts to nothing more than parlor tricks?"

"But some of these psychics have convinced reputable scientists."

"Scientists are out of their league when they deal with these guys. Scientists are by and large honest, and they're not in the habit of dealing with people who are trying to fool them. They'd proclaim Randi a psychic if he told them he was one. I'm not impressed when some scientist proclaims one to be genuine. But let one of those guys get by a good magician and I might take notice."

I sat back and was looking out at the sea again. Carol looked back at me. Her window was open and her hair was floating on the breeze.

"Mac tells me you write," she said.

I nodded.

"He said you write poetry."

I was flattered to find out Mac talks about me.

She turned forward again and fished something out of the glove box. It was a notebook. She handed it to me over the seat.

"Tell me if these are any good."

I opened it and read the first poem. It was horrible. I read the second. It was worse. The third, fourth, and fifth were terrible, too. I was mortified. She wanted my opinion of them. I glanced up at her. She was watching me. How was I going to tell this beautiful woman, the girlfriend of a newfound best friend, that her poetry was atrocious. I read a few more.

I looked up again. She was still watching me. Looking into her eyes I knew if I wasn't brutally honest, she'd know I was lying.

I had to be honest. But my mouth opened and I lied, "They're pretty good. They're not quite what we put in the magazine..."

She screwed her face up. "Really? I think they stink. They're my cousin's girl friend's stuff. I can't believe you like them. When Jeff's girlfriend, Rita, heard you were coming, she insisted you read them before you got there."

She turned forward again. I must have looked mortified because Mac looked at me in the mirror again and started laughing. Carol looked at him, then back at me.

"You just said you like them because you thought they were mine, didn't you?"

I nodded.

She laughed. "You men are such cowards."

"Does the woman who wrote them want me to be honest with her?" I asked.

"Only if you think they rival Shakespeare's."

Mac laughed some more.

The rest of the trip was uneventful.

We arrived at a house in Malibu. It was one of those modern looking things that's all pastels and straight lines. We went in and Carol started introducing Mac and me around. She introduced us to her cousin, Jeff, then she introduced us to Jeff's girlfriend.

"Mac, this is my cousin's friend, Rita."

Rita was one of the most beautiful women I've ever seen. If there are desirable young virgins waiting on departed warriors in Valhalla, this is what they look like. She started to shake Mac's hand and stopped. "Oh, you're the poker player," she said and pulled her hand away like he was pond scum.

"And you must be the magazine editor," she said turning to me. Her face lit up and enveloped me. I was hers to do with as she pleased. My legs were like wilted celery stalks. No woman this beautiful had ever spoken to me before. She was going to ask me about her poems. I was going to lie. I'd hate myself in the morning. So what?

Her face changed. I no longer existed. I extended my hand but she didn't take it and just as suddenly as she'd appeared, she was gone. I was stung.

"Wrong guy," Carol said. "He couldn't make it. This is John, another card player."

Her face changed. I no longer existed. I extended my hand but she didn't take it and just as suddenly as she'd appeared, she was gone. I was stung.

"I told her that because you men are such cowards," Carol said.

"You should have let John handle that," Mac said.

"I would have told her anything she wanted to hear," I confessed.

"I know that," Carol said.

Mac watched Rita as she walked away from us, and Carol kicked him in the ankle.

"Hey, that hurt."

"Do you guys both need drool cups?" she asked and she took Mac's hand and they wandered around. Since I felt so out of place, I stuck close to them.

For hors d'oeuvres there were stuffed mushrooms I'd die for, marinated shrimp I'd kill for, and oysters

on the half shell I couldn't get enough of. There were cases of wine I couldn't have afforded by the glass. I sensed there was so much money here a collection could have been taken up to buy Rhode Island and pave it over for tennis courts.

There were people talking the film business. I don't mean Fotomat but MGM and Universal. Others talked music. Everyone was dropping names the way baseball fans drop statistics.

We stopped to look out one of the bay windows and I found myself gazing on a view of the Pacific I couldn't afford. Suddenly, I was sure money could buy me happiness.

I looked around and Mac and Carol were gone. I felt awkward, like I was a fraud. I just hoped no one was going to ask me what I did for a living.

"Relax," a voice said. It was Carol. She was back. "These people are liars, just like you were in the car."

I laughed and wished I'd been honest with her when she'd shown me the poems.

"Mac's casing the place. He's trying to find out if there are any poker players here so he can wangle his way into their games." She rolled her eyes. "I think I'm going to get a nightgown made out of playing cards."

"Come on," she said and we walked into what I immediately realized was a large office. I still didn't know what her cousin did for a living. At least half the people at the party had congregated in this room. A man was sitting at a table and looked like he was doing card tricks. Carol and I got closer and heard him say:

"Everyone has ESP to some extent."

"That's what I think, Ron." The speaker was a woman named Helen.

"Here, let me show you," Ron said and he stopped shuffling the deck and spread the cards in what looked like a random fashion over the table.

We all moved closer to the table.

"I want you to point to..." He hesitated for effect. "...point to a red card. Make it a ten. Make it the ten of hearts."

She held her finger deliberately over the cards.

"Go ahead," he said.

She giggled and pointed to one.

"Don't touch it," Ron said.

"That one," she said. Her index finger hovered just millimeters over a card.

"Are you sure?"

She nodded.

He picked the card up and held it so only he could see it. When he looked back at her, his expression was non-committal.

"Pick another one," he said.

"Did I get the ten of hearts?" she asked.

"Just pick another one. Pick a black one this time." He thought a moment. "Make it a picture card. Make it the king of spades."

She hesitated. She was still thinking about the ten of hearts.

"Go ahead," he said.

"But I want to know if I got the ten of hearts."

"Point to the king of spades, first."

She let her hand hover again and slowly moved it in circles until she settled on a card in the middle of the table.

"This one?" Ron asked as he pointed to a card.

"The one next to it."

He moved his finger slightly. "This one?"

"Yes."

"Are you sure?"

She nodded.

He picked this card up and looked at it, too. He gazed at her again and she laughed.

"Let me see if I can pick one," he said. "Let's make it a small card. Let's make it the three of spades." His hand floated over the table until it settled on a card near him and he picked it up and looked at it for a moment, then looked at Helen again as he shuffled the three cards in his hands.

"Do you think I got mine, the three of spades?"

She thought a second and smiled. "How would I know?"

He threw the three of spades face up on the table. She looked surprised.

"Do you think you got yours, the ten of hearts and the king of spades?"

"I don't know," she laughed.

He threw the ten of hearts and the king of spades face up on the table.

"How did I do that?" She was incredulous.

"I told you, you have psychic powers. I can detect that they're not real strong right now, but with practice you could really start doing things with them."

She looked pleased with herself. "You know, I always could tell things, like when things were going to happen. And the night my grandmother died, I remember worrying about her and thinking of calling her and suddenly the phone rang and it was my mother. She told me my grandmother had just died. How could I have known that?"

"You just have to develop those powers," Ron said.

"Can we do it again?" she asked.

He was shuffling the deck again.

"Are you sure you want to?" he asked.

"Yes."

He spread the cards on the table again.

I suddenly realized Mac was with us now. I sidled up to him. "Did you see that?" I whispered.

He nodded.

"Do you know how he did it?"

He smiled and nodded again.

He turned and I followed him to a table that had more opened bottles of wine. He poured some for me, then some for himself. "I could ruin a perfectly good liver living here," he said.

Across the room, the rest of the guests huddled around the table where Ron was asking Helen to point to the ace of diamonds.

"How'd he do it?" I asked.

"The trick? Each time he finishes, he reshuffles the deck. As he shuffles, he'll glance at the bottom card. After he sees it, he can keep shuffling, but he makes sure the card he saw stays

on the bottom. When he spreads the cards on the table he knows where that bottom card is. Say the six of hearts is the card he saw. He asks her to point to the six of hearts."

"But she doesn't know where it is."

"That's right. But she'll point to some card. Whatever she points to, he'll pick it up and look at it, being careful not to let anyone else see it. Say the card she pointed to was the ten of spades, now he asks her to point to the ten of spades. She can't, of course, because it's in his hand, but she points to another card. He picks that card up and looks at it. Again he's careful to make sure no one else sees it. Say it's the queen of hearts. Now he says, 'I'll pick the queen of hearts, and he picks up the card that's on the bottom of the deck...'"

"And that was the six of hearts that he asked for in the first place. So, now he has all three cards."

"That's right. He shuffles the three cards, just in case someone's noticed the order he had them in. Then, with a little drama, he shows the cards to everybody and we're all astounded."

"How do you know that trick?"

"It's older than I am."

We worked our way back to the table. Rita was at the table now and Ron was using her as the subject. She was certainly a lot prettier than Helen, and Helen stood by watching silently. I don't think Helen liked not being the center of attention anymore and she certainly didn't like not being the focus of Ron's attention.

"How do you do it?" Rita asked when he was done.

He shrugged. "We all have psychic powers to some degree. Most people don't know it, so their talents lie fallow. With practice, though, they become stronger. I can sense that each time you do it, your powers are getting stronger."

"Are you sure this isn't just a trick?" Rita asked.

"It's no trick. Even if there were a way for me to pick my card, how does

that explain the way you were picking your cards?"

She didn't have an answer for that.

"Let's do it again," she said.

I was itching to see what would happen when Mac exposed him. "Are you going to tell them how he does it?" I whispered.

"No. Everyone's having fun."

I watched Ron go on with the trick and suddenly I realized the reason I wanted Ron exposed was because I envied him and the way he was the center of attention. He'd already had Helen in his grasp, then threw her aside to focus on the vivacious, though vacuous, Rita.

When the trick was over, she said, "I'm not surprised. I've always known I've had psychic powers."

On the other side of the table, a fellow named Chuck, a technological type who later revealed himself to be a computer scientist, finally said, "I don't believe in ESP. That's just some kind of card trick."

"Then how's he do it?" Rita asked.

Chuck didn't answer but looked smugly doubtful just the same.

Rita was hanging on Ron, now. He wasn't interested in Helen anymore.

"It really is ESP, isn't it?" she asked Ron.

"What do you think?"

A woman on the other side of the table said, "My sister can tell what people are going to say before they open their mouths."

"Oh, come on," Chuck said. "This is just a parlor trick."

Others joined in the discussion and the room quickly broke into two camps: those who believed in psychic powers and those who didn't. Of the two dozen or so other guests, only about four said they didn't believe. Chuck was the most vehement of those four. Two of the other three, all men, merely said they were skeptical but wanted to remain open minded. Chuck's friend, Ira, halfheartedly supported Chuck but he really seemed to be a fence sitter, and if Chuck hadn't

been there, I'm sure he would have been in the other camp.

But the consensus seemed to be that if Chuck couldn't explain away all the psychic phenomena the others had seen, then he should concede their point. He wasn't willing to give in. But he wasn't articulate either, and his objections started to get more strident and he seemed to be making a fool of himself.

Mac left the room. I thought he'd gotten bored with the discussion. But just as suddenly, he reappeared at my side. He followed the discussion intently, and I wondered why he wasn't taking sides.

"Excuse me," he suddenly said. "I think I know a way that we can settle all this quite convincingly."

Only a few of the people seemed to notice he was talking, at first. But he went on and voices fell quiet as people paused to listen to him.

"I have a friend who can perform quite a spectacular feat and I think it would be a real eye-opener for everyone here."

"Who?" Rita asked.

"Well, since we're working with cards here, let me have the deck. He gathered up the cards before anyone could object.

"Someone...you, Helen...shuffle the cards a few more times and then remove a card from the deck."

She shuffled. "Now what?"

"Have Rita take a card from the deck. Any card, and show it to us all."

Rita took out one card and showed it around. It was the five of clubs.

"Are we all satisfied with the five of clubs?" Mac asked.

Several people nodded their approval, but no one seemed to know where this was going.

"I have a friend in Florida," Mac said. "She's half Gypsy and she has some uncanny powers that I've never been able to explain. But I think I can cast new light on the discussion here."

"What does she do?" Rita asked.

"She's a true psychic, the only real one I've ever seen. She can do things I

never believed possible until I witnessed her powers. She said they came to her after she had nearly drowned in a boating accident 10 years ago. Three other people died in the accident."

I was stunned. Could Mac really believe in psychic powers after what he'd said in the car?

"I want everyone to concentrate on the five of clubs," he said. "May I use your cousin's phone?" he asked Carol. "I want to call Madame Elinor in Florida. I'll use my credit card."

"Jeff's loaded, dial direct," she said.

Mac picked up the phone but used his calling card, anyway. Then he waited.

"Hello?" he said. "May I speak with Madame Elinor?"

He paused and seemed to stare intently into space. "Hello? Madame Elinor? This is O.E. MacDougal. Do you remember me?"

He looked down at the phone and asked Carol, "This is a speaker phone, isn't it?"

"Yes."

He stared at all the buttons on the phone. "How do you..."

Carol reached over and pushed the speaker button and Mac hung up.

"There. Can you hear us Madame Elinor?"

"Yes," the voice on the other end replied. It was a soft, smooth voice and sounded a little exotic.

"We're out here in California," he said, "and I'm with a group of people who are discussing the existence of ESP. I know you don't like to be bothered like this, but I was wondering if you could just give a short demonstration of your powers."

There was a pause on the other end. "If you know I don't like doing this, why did you call, Mr. MacDougal." Her voice was cold and accusatory.

"I want to apologize. I just thought perhaps you could help us."

"You already have me on the phone. So, go ahead." She sounded impatient.

"We've chosen a card out of a deck and I just wanted to show them..."

"Would you all please concentrate on it?" Madame Elinor interrupted.

All motion in the room seemed to have stopped. I was breathless. Where was this going? Mac had just told me...

"There is someone in the room who's mind is drifting," she said.

We all looked at each other accusingly, but I was sure it was me. We concentrated harder.

"I see a black card," Madame Elinor said.

There was another pause. It's a small card...but not a real small card...I think I see..."

I thought five of clubs as hard as I could.

"I see the five of clubs."

I was stunned. Rita started laughing. Even Ron looked surprised.

"Thank you," Mac said. "We won't be bothering you again."

"It's okay," Madame Elinor said. "I'm glad I could help you, Mr. MacDougal."

The phone went dead and Mac turned off the speaker.

"Wow, there it is," Rita said. She was jumping in place.

After everything Mac had told me, I wondered how this could have happened. I watched him for a sign, but he never even looked my way.

Those who believed in ESP were now triumphant. The three who had sided with Chuck now fell into the other camp. And even Chuck started to crumble. "Well, I want to be open minded," he said. "This might be the real thing. But most of the stuff you see I think is phony."

"What about what Ron was doing?" Rita asked.

Ron was silent now. He obviously wasn't about to let on he was just doing a card trick. Not now.

Strangely, Mac had backed out of the discussion and was just listening again. He seemed to be interested in how opinions had changed.

Chuck was obviously uncomfortable. He repeated that he still felt *most* demonstrations of ESP were phony.

"Oh, you scientific types are so anal," Rita said. "You just got living proof and you still want to deny it. Science can't explain everything," she said, and most of the people in the room agreed with her.

I was starting to have doubts about what Mac had told me in the car. I thought, I must have misunderstood him. He still didn't look at me.

Chuck fell silent.

"One other thing of interest," Mac said.

"What's that?" Rita asked.

"What you think you saw, didn't happen."

"What do you mean?"

"I mean, what you saw was not evidence of psychic phenomena."

"But you just..."

"There is no Madame Elinor. Earlier, while you folks were talking, I went to the phone in the hall and called my sister in Florida and told her what was going on. I told her that, when her phone rang again, she should pick it up and start saying 'Hearts, club, diamonds, spades.' I would say hello as soon as she called the right suit. After I asked to speak to Madame Elinor, she was to slowly start saying, 'Ace, two, three, four...', etc. When I said hello again, she knew the face value. Then I put her on the speaker phone and...well, you know the rest."

"Why did you do that?" Rita asked and walked across the room to stand in front of him.

"Because so many people jump at the first romantic explanation for unexplained phenomena that is presented to them. If it's not ESP, it's flying saucers or visits from angels. I just wanted to show you that even after someone offers you proof of something unbelievable, you should be skeptical. Seeing is not always believing."

Then she kicked him in the same ankle Carol had and stormed from the room while he hopped about on one foot.

"I think she likes you," Carol said.

"I thought I was being helpful."

"People don't want you to help them. Do you think they play with you because they think they're better than you? About 30 minutes at the table and they know you're the best player but they think God, luck, or the poker fairies will help them beat you.

"You, of all people, should be grateful people are the way they are."

"I guess you're right."

"She kicks harder than you."

"I'm sure that's all she does better than me," she said and kissed him.

The rest of the party didn't go well for Mac. Most who were there were aloof from him. Even Chuck was angry because he felt that even though Mac had basically agreed with him, he waited until he'd caved into popular opinion before saying anything. Chuck had wanted to be part of the "proof" that people are gullible.

On the way back to Ventura, Carol said, "Well, I'll tell you one thing, we won't be invited back to Jeff's for a while. Rita will make sure of that. But she won't last forever."

"Would he let something as beautiful as Rita go?"

"He tosses out women the way most men take out their trash."

"I just can't believe that backfired on me the way it did," Mac said. "I didn't anticipate them getting mad."

"They felt they'd been made fools of," she said.

"I still thought I was being helpful. I even had a lead on what could be a good game down in Hollywood. That's shot, now."

"There are other games."

"Well, you certainly made a fool out of me," I said.

"That wasn't my intention. It would just be nicer if people realized they should give some thought to things before accepting explanations, and even then to be skeptical."

"I just want to know when we're going back to your cousin's," I said.

"Why," Carol asked.

"I'm going to pick through his trash the day he throws Rita out." Δ

Money doesn't grow on trees, but you can grow it in your garden

By Robert L. Williams III

For many people, gardening is a splendid hobby that provides exercise, fresh air, and nutritious vegetables, berries, fruit, and melons. For many other people, gardening is a total mystery.

For nearly all people who are physically able, however, gardening can be not only pleasurable, but profitable. All that is necessary is to plant wisely, care for plants diligently, and eat or sell the harvest sensibly.

The first question is what to grow and how much of it. To a large extent, where you live determines what you can grow, but there are some universal favorites that find a place in a huge percentage of gardens.

If you plan to sell your produce, give careful thought to crops that are easy to grow and will show big profits. As an example, my tomato patch is usually a little larger than two modest rooms in a typical house, and the yield from this patch can be as high as 350 pounds a week. In the early season when tomatoes are scarce and sell in the stores for a dollar a pound or more, I can sell to markets for 50¢ a pound. When prices drop, I can sell for 25¢ a pound or less. This means that income from tomatoes could range from \$70 to \$175 a week. You can average \$100 a week for three months, giving an income of \$1,440 from tomatoes alone.

Other vegetables that produce high profits for a small amount of work are string beans, okra, squash, radishes, cucumbers, strawberries, dewberries, and black-

berries. Blackberries are ideal, because the berries can grow on their own. You rarely need to plant them, thin them, cultivate them, or spray them, once you have established a good patch. Typically, blackberries sell in the markets for \$5 a gallon. From this amount, the grower receives \$2.50 per gallon or slightly more. The growing season for blackberries is fairly short, but you can pick daily in the same patch. It is hard work, but you can pick up to 10 gallons in a day's time, if you have several good patches.

If you have enough space, consider growing corn, potatoes, sweet potatoes, pumpkins, watermelons, and cantaloupes. Once the vines or plants have matured, little care is needed until picking time. Watermelons bring \$2.50 or more each in the early season and \$1.50 when melons are plentiful.

If you have land that can be used for an orchard, you can earn considerable profits by growing apples, peaches, pears, plums, and cherries. From a healthy apple tree, you can pick about 10 bushels of apples, which will sell for \$2.50 to \$5 per bushel, or \$25 to \$50 from each tree. If you have 20 trees, your income can be \$500 or much more per season. Peaches bring in \$5 to \$7 per bushel.

Grapes also grow well in many parts of the country. Scuppernong grapes and muscadines are extremely easy to grow and bring in great profits. The muscadines sell for one dollar for a large cup or small carton, and a dozen vines will produce gallons and gallons of grapes and literally hundreds of dollars of income.



The author started gardening nine years ago, at the age of ten. Here he is with some of the produce from his first garden.



Huge cabbages such as the ones shown above weighed 15 pounds each and sold for \$2 to \$3 apiece. They thrive on household vitamins.

Cut your expenses

Growing vegetables and fruits is not all profit. In fact, if you do not manage it carefully, your garden may cost more than it earns. Seeds, plants, and fertilizers are expensive, and chemicals for pest control can be not only costly but harmful.

But there are ways to cut your expenses. You can save money by starting your own plants from seed, instead of buying starts. You can start seeds indoors or in a cold frame or greenhouse.

And, if you are not growing hybrid plants, you can save your own seeds. The seeds from one pumpkin, watermelon, cantaloupe, cucumber, squash, okra pod, tomato, turnip plant, or cabbage will be sufficient to plant a fairly large garden plot. You can save \$40 to \$50 by saving your own seeds.

You can save several hundred dollars if you buy root stock and graft your own apple trees. You can also bud-graft peach trees. By reading a good book or magazine articles on the

topic, you can do a variety of grafting work on all kinds of fruit trees.

If you have access to one or two good grape vines, when the vines are pruned, you can gather the clippings and then bury them in a shallow trench dug in loose soil. Leave four to six inches of the clippings above the surface and keep the soil moist and, preferably, covered with well-rotted sawdust or mulch. Not all of the cuttings will take root, but many will, and you can have as many grape vines as you wish with no cost at all.

You can also take a plastic bag and fill it with well-rotted compost. Be sure that the compost is moistened. Then take one end of a growing grape vine and push it all the way through the compost and the plastic bag. Tie a string at both ends of the plastic so it can't come open, so your compost won't spill out or dry. After several days, the vine will form roots, and you will have a "new" grape vine. Cut the vine below the plastic bag, remove the bag, and plant your new grape vine.

A third way to root a grape vine is to pull a section of vine to the ground and cover it with good moist soil. Leave the vine buried until roots form. Then cut the vine behind the roots and plant it out in your vineyard.

You can have tomatoes until frost by doing the following: as your adult plants start to fail, break suckers from the plants and push the end of each sucker into good soil or compost, and



A properly tended patch of green beans will produce several bushels of beans daily and hundreds of dollars annually.



"New" potatoes sell very well in early summer. This wheelbarrow holds about \$35 worth of new potatoes.

within a week you will have new tomato plants a foot tall or higher.

To save money on fertilizer, save all table scraps and peelings and keep these in a compost bin until they decay. This compost makes superior fertilizer.

Save all your sawdust, bark, pine needles, small wood chips, leaves, and small twigs in a large pile. Turn the contents of the pile with a shovel every two weeks until everything is fully rotted. If you have a chipper, make your own mulch and clean up your land at the same time. Pile the mulch around plants and even between rows. By doing so, you prevent weeds to a large extent, and the mulch holds the moisture in the soil. At the end of the season, plow the mulch into the soil. (Don't plow in woody material unless it's fully composted, or it will retard next season's growth.) Producing your own mulch will save you money in at least two ways: you produce your own fertilizer and you save on the cost of watering your garden.

To market

Your next step is to market what you grow. Long before you are ready to harvest your crops, contact people who operate roadside produce stands. These people are often in need of all the produce they can get. Many produce sellers admit that they grow very little of what they sell. They also say

that they have to drive long distances to buy the produce they need.

In preparing this article, I talked with produce vendors, and what I learned was surprising and pleasing. One roadside operator (who sells many thousands of dollars worth of produce each year) had this to say: "We don't even try to make a profit on produce we buy. We grow and sell fruit, and we are delighted to have gardeners bring their produce for us to sell for the gardener. We have found that many customers who stop to buy green beans and okra also buy our peaches and apples."

The largest roadside produce seller in our area does not grow his own vegetables and fruits. He said, "I drive 300 miles to pick up my produce. It would save me a great deal of time and money if I could buy it locally. I will buy all the green beans, okra, tomatoes, cabbage, and potatoes that local gardeners can produce. I am especially interested in fruits and vegetables that have a long shelf life."

He cited the following price schedule: \$5 per bushel for Irish potatoes; \$17 for a thirty-pound box of tomatoes; \$10 per bushel for cucumbers; \$12 for $\frac{3}{4}$ bushel of squash; \$10 for $\frac{1}{2}$ bushel of okra; \$20 per bushel for string beans; \$2 or more for watermelons; \$8 for a 50-pound sack of cabbage; \$4 a gallon for strawberries; \$6 a gallon for blackberries; and \$1.50 for pie pumpkins.

It is easy to see that green beans are very profitable. You can plant several hundred-foot rows and pick bushels of beans every day for weeks. As soon as your first beans bloom, plant more beans. Keep doing this all summer so that you will have fresh beans at all times.

One final thought: suppose you grow 20 bushels of Irish potatoes, 500 pounds of tomatoes, five bushels of



Watermelons produce well, and several plants will earn \$100 or more.

cucumbers, ten bushels of squash, ten bushels of okra, 50 bushels of string beans, 300 cantaloupes, 200 watermelons, 150 pumpkins, 50 bushels of apples, 500 pounds of cabbage, 100 gallons of strawberries, and 50 gallons of blackberries. This may sound like a lot, but in reality, it is a small amount

for an energetic gardener to produce. The total income for the products listed above will be more than \$5,000.

That is not too bad for an activity that costs little, provides great exercise, brings immense pleasure, and also fills the table with delicious food. I started gardening seriously when I was in elementary school, and I learned that I could make a profit then. At age 19 I still garden, and profits today are even better. You too can make money from your garden, and the beauty of it is that the demand for fresh

vegetables grows greater—as do profits—each year. Δ

Blessed is he who has found his work; let him ask no other blessedness.

—Thomas Carlyle, 1843

A country moment



Pat Ward of Fall Creek Ranch in southern Oregon took this photo of her ranch pond on a recent quiet evening.

(Note: If you have a country moment you'd like to share with our readers, please send it to us at Country Moment, *Backwoods Home Magazine*, P.O. Box 712, Gold Beach, OR 97444. Please include a self-addressed, stamped return envelope if you want the photo back.)

Where I live

By Annie Duffy

Working for a dad who works at home

I am homeschooled, and part of my homeschooling involves working for my Dad on this magazine. It has been a good learning experience for me. Not only have I learned how to work hard, but I have learned a lot about computers and writing.

Ever since Dad started *Backwoods Home Magazine*, I've worked for him in one way or another. Up to about two years ago, I labeled, stuffed, and stamped envelopes. I usually packaged our anthologies for mailing too. I always got to use the computer, usually playing games, but once the magazine grew a bit and we got a few more employees, I used the computer more often.

Since most jobs at this office have to do with the computer, I've learned many programs. Lately I have been teaching Linda, one of our employees, how to use Quark XPress, the desktop publisher program we use to make this magazine. She is typing in all of the zucchini recipes that readers have been sending in so we can publish them in a book later this year. I learned Quark XPress just by hanging around the office and asking my Dad and Lance, our associate editor, questions when I got stuck.

Another of my computer jobs is creating ads and editing photos using a program called Adobe Photoshop. Don Childers, our cover artist, has been teaching me that. Since he is a real artist, he can teach me things that only an artist would notice.

And, of course, I write this column, which helps me develop my writing

skills. I also get credit for it with my English grade.

With the computers, I have access to the Internet. I can research stuff for my columns and for my schoolwork. I found some information about my goats, horse, and donkey too.

I also found some information about Veterinary Medicine, and since I hope to be a vet, I have been exploring these sections a lot. My goal is to have a business covering all aspects of animal care. Since I want to take full advantage of the preveterinary courses offered in highschool, I probably will not be homeschooled next year. Although I love to be at home, I think it will give me a good head start on my career.

My dad is buying a few acres close to my home where we will build our new office. We will also build a riding arena and a small barn. I hope to eventually locate my business there, too.

A fun part of working for my Dad has been traveling. My Dad and I have demonstrated *BHM* at many tradeshow in the western states, and a few in the east, to promote it. The shows are usually three days long, and I've had a chance to visit many places, such as Seattle, San Francisco, Portland, Los Angeles, Las Vegas, Salt Lake City, and Boston. I also get a lot of studying done in the car, by reading aloud to my Dad, who then quizzes me on what I just read. I usually read each section of my book three or four times, until I know it cold.

Since I am homeschooled and I work for my Dad, I also have a much



Annie Duffy

more flexible schedule, which allows me to take trips and do things that normally I wouldn't be able to do. Things like hiking, training my animals, and night fishing.

Just recently I was offered a job exercising horses for a neighboring couple. It's a job I really want, and thanks to my flexible hours, I'll be able to take it.

Since my Dad is a writer, and our senior editor, John Silveira, is a mathematician, I don't often have problems with my homework. John Silveira is like a walking encyclopedia so I can almost always get answers to the questions I have.

The advantages of homeschooling over public schooling are obvious for someone like me, since I live so far from town. The advantages of working for the magazine at home are even greater. I'm getting to learn all aspects of running a business, plus I still have the freedom to do things I love.

If you are offered a chance to work in your family business, take it. I hope you get the chance to learn as much as I do. Δ

Homesteading on the electronic frontier

By Martin Waterman

Cybrarian—a great Internet job

This column generates a great deal of e-mail and by far the number one concern among *BHM* readers is that of affordable Internet access. Although the competition among Internet providers in major metropolitan areas is fierce, resulting in a wide choice of providers and affordable pricing, rural dwellers have often been stuck with having to use expensive online services such as CompuServe and America Online, as well as often having to pay long distance toll charges.

Good news! Affordable Internet service for rural areas is arriving faster than anyone thought possible. This is for several reasons, the biggest of which is the entrance into the Internet service market by the larger telephone companies.

AT&T has announced that it will be giving inexpensive Internet access to its customers. The other phone companies are expected to follow to hold onto their respective market share in the competitive and expanding communication arena.

Another catalyst is the recent announcement by the Federal Communications Commission to open up the \$100 billion local phone business to long distance companies as well as cable TV operators, the latter of which are already experimenting with providing high speed Internet access. The Internet is quickly becoming a vital component that will have to be offered by any company involved in telecommunications, lest their competitors have any advantage.

Cybrarians

The Internet is creating new jobs, and not just for the people providing the online services. A new position has been created that can be done from anywhere on the planet, provid-



ing you have access to the Internet. This is the position of being a cybrarian.

Cybrarians are one of the new jobs of the Information age, and not only are they in demand by businesses, but being a cybrarian itself can offer a great opportunity to be in business for yourself, particularly if you specialize in a particular kind of information that is needed.

Cybrarians are, of course, basically librarians but instead of being surrounded by books, they are nestled into a computer work station. There they are connected to the Internet and search the four corners of the globe to harvest information from thousands of universities, the World Wide Web, Internet News Groups, governments,

businesses, professionals, and libraries such as the Library of Congress.

Consistent with the many facets of the Internet, there is more than one type of cybrarian. There is the traditional, institutional librarian who has made the leap to the Internet. The other type of cybrarian is more of a free-lance librarian, or, as an ode to the old west, a cybrarian for hire—a virtual information bounty hunter.

A third type of cybrarian that has evolved is the Corporate cybrarian. Many large businesses have always had corporate researchers to find market and other information. However, with the birth and unprecedented growth of the Information Highway, many businesses have found that the need for their own in-house or part time cybrarian if for no other reason than to monitor their

competition. No matter the reason that information is needed, more and more organizations are finding they need someone to handle this task. This is usually because most managers, who need the information the most, do not have the time to surf and build an inventory of useful sites and find the information that they need.

The language barrier

The thought of marketing your wares around the world may seem intimidating, especially because of the different languages spoken. But the language barrier is not insurmountable, especially since English is the language of the Internet. There is also another factor at work that will help you do business around the world.

In the Orient and Latin America, many of the business people have very poor language skills when it comes to the English language. However, when it comes to written skills, most have excellent grammar. When dealing with a WWW site and e-mail, people in other countries are not intimidated and can take the time to compose a response. They may be very interested in using your services, as well as acquiring the rights to your product.

A real live cybrarian

I caught up with Lorna Peers, a real live cybrarian at the DISCscribe sit, which is located in Fredericton, New Brunswick, Canada (National borders, by the way, are irrelevant to the Internet). Lorna holds a masters degree in library and information science from the University of Western Ontario. She can be reached at <http://www.discscribe.ca/discscribe.htm> or e-mailed at lornap@discscribe.ca. If you visit her WWW home page you will see her photo and see that cybrarians are not chrome-plated info hunters from the future. Following is an interview I had with her:

BHM: What is your primary function as a cybrarian?

Lorna Peers: I locate information for clients or members of the company I work for using the Internet or commercial online databases. I think your term "information bounty hunter" is quite accurate. This includes individual requests from businesses and individuals, locating competitive information for use by companies, and background research and online promotion of clients who are on our Web server.

BHM: What percentage of your work do you find deals with online promotion?

Lorna Peers: I would estimate at least 50% and growing. I'm always finding new search engines and other places to promote our clients' Web sites. A lot of the time is spent locating the most appropriate category in a directory such as Yahoo.

BHM: How do you typically online promote a company?

Lorna Peers: At the design stage, I typically do some research to see what sites similar to the clients' may exist and where they are located in directories or indices. Once the client's site is ready, we write a brief press release or promo and post it in the appropriate newsgroups, mailing lists, search engines (i.e., Locos, etc.), subject directories, and What's New pages. Online promotion is very important to Web sites. Regardless of a site's value, it is of little use if it cannot be easily located.

BHM: What areas of the Internet do you find you use the most to find information for your clients?

Lorna Peers: I would have to say that I use the Web most often, primarily because of the Web design we do for clients. For more general requests, I use the Web (usually first, as it is the fastest growing portion of the Internet), gopher (less so, I often find the information out of date or reach dead ends), as well as newsgroups and mailing lists. On occasion, I may come across a Web site with a contact name and send a request by e-mail to see if he or she can supply more information. Other sources include library catalogs and periodical databases.

BHM: Is there such a thing as a common question you receive?

Lorna Peers: Not really. We've done some consulting for national organizations that want to get their offices on the Internet, so I'm often updating my list of Canadian ISPs (Internet Service Providers).

BHM: What is the biggest information request you have received?

Lorna Peers: One client wanted a fairly comprehensive list of Canadian companies that design and host Web pages, with contact and pricing information. Finding the companies wasn't difficult, but locating their list of services and pricing information, when available, took a while. Do you realize that some companies didn't have contact information on their pages? Not

very useful for the client who didn't have Web access.

BHM: Do you find that most of your customers are preoccupied with the status of their competitors' presence on the Internet?

Lorna Peers: No, not as much as they should be. Some businesses still see barriers to the Internet—e.g., cost of hardware, cost of access, learning curve—despite the fact that their competitor may already have a presence online. This spring we held two free seminars on using the Internet for local businesses. I think once they have the opportunity to see the capabilities for themselves, they may realize its potential.

BHM: What is the primary type of research you conduct and for what type of companies?

Lorna Peers: In terms of individual requests, many companies request a synopsis of "what's out there" that may be related to their type of business. In many cases these businesses don't yet have Internet access of their own, so the results may help justify the decision to purchase access. I would estimate that many of these companies are small businesses.

BHM: What does a cybrarian typically charge?

Lorna Peers: My rates range from \$65 to \$100 (Canadian) plus applicable taxes per hour for searching and formatting results. The rate depends on the volume of work and the urgency of the information.

BHM: Could you categorize for us the types of businesses that you find most often require the use of a cybrarian and for what purposes?

Lorna Peers: I've done a number of searches for government departments, where they required information for presentations, or for decision-making purposes, e.g., whether or not to proceed with a particular program. I've done research for insurance companies, telephone companies, manufacturing, public utilities, hotels, non-profit organizations. The businesses, individuals, and organizations that have

purchased our Web services range from the chambers of commerce to music groups. They like the fact that I can put together a list of links to other sites with related information, as well as promote their site.

BHM: What do you like or dislike about being a cybrarian as opposed to being a conventional librarian in a book-filled environment?

Lorna Peers: I like the fact that the Internet is constantly changing and evolving. It's all I can do to keep up on all the new sites, software, etc. Navigating the Internet can be a challenge, since there is no absolute list of its resources, but the tools and indices have improved significantly. I can't say I dislike anything. Who wouldn't love to surf the Net all day, and get paid? I'm also adjusting to being, for the most part, a telecommuter and working from home. I missed the daily interaction with co-workers at first, but there are lots of benefits. Also, since most of the communication and transfer of my results are done electronically, I rarely meet my clients face to face, and I for one would like to meet them now and then.

BHM: What is the strangest request you have ever received for information?

Lorna Peers: Well, we do have a site on UFOs. I put together a list of links to UFO pages on the Net. There's a ton of them. Another was for the availability of Internet access in St. Lucia, a Carribean island.

Opportunities

Many people now surfing the Internet as a hobby are becoming cybrarians. The field is wide open because it's still very young. If you're already surfing the Net, there may be a job there for you. Who knows, maybe one of your neighbors is putting in solar and he's reached a bottleneck because he needs information. Right there could be your very first customer. Δ

Pedestrian

*She was awkwardly crumpled
Facedown in the street,
In the rain,
Her skirt up over her waist,
Her umbrella and purse
Separated from her
As if they didn't belong.
She stared unblinkingly at the wet asphalt
While the car that had surprised her in the crosswalk
Was stalled beside her in the roadway
Looking like a beast that had just stopped by to graze.
Far away, sirens wailed.
There was no way for them to know
There was no hurry.
I wanted to do something
To save her from the indignity
Of dying in the middle of the road,
Her ass in the air,
In the rain.
I wanted to close her eyes.
But our bus had come and I got on.
I watched from the window
As the bus pulled away.
A crowd had gathered
To stare at her.*

John Silveira
Ojai, CA

A BHM Staff Profile: Mark S. Cogan

Mark Cogan is the layout and design editor of *Backwoods Home Magazine*, and as such is responsible for the "new look" the magazine has acquired during the past year (1999). He came to BHM from *Wind Tracks Magazine*, the nation's second largest windsurfing publication. Mark has worked as a design consultant and as a web developer for large corporations such as Harley Davidson Motorcycles, Neil Pryde Ltd, the world's largest producer of water sports products in the world, and smaller outfits, like NetServe, Inc., Big Air Windsurfing, and several other lesser known companies.

Mark, 24, is also a part-time college student, majoring in Human Services and Sociology. He will leave the magazine in the fall of 2000 to become a full-time student. His hobbies include playing the trombone, singing Frank Sinatra tunes, and being a camp counselor during the summer.



Using trot lines, set lines, and jug fishing will increase your fish catch substantially

By Rev. J.D. Hooker

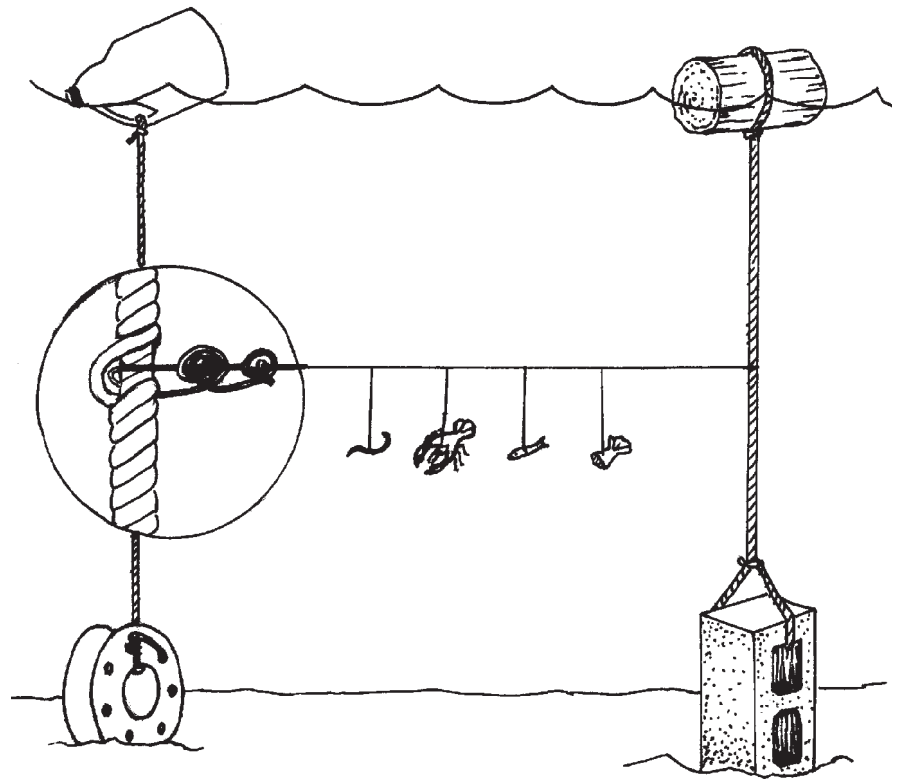
As I write this, it's past the middle of February, so spring's not that far off. Everyone is starting to look forward to the upcoming season change. Garden catalogs are all out by now, and ours are being researched regularly. Also, we've got a few poultry catalogs, and some new plans to go with them. And my wife and I intend to put up a small greenhouse pretty soon.

I'd have to say, though, that the one thing I'm most looking forward to is the ice-out—the day when, finally, all of the rivers and lakes around here are once again open water. Now, it's not a bad thing to sit out on a frozen lake, pulling fish out through holes chopped in the ice . . . especially if you have some good homemade Applejack to drink, and a pipe stuffed with good homegrown tobacco to keep you company. But that's just never been my idea of fishing.

Of course, my idea of fishing is a little different from a lot of other folks' anyway. If you're interested in providing a steady supply of delicious, high-protein, low-fat foodstuff for yourself, with the added bonus of producing a really high-quality supplemental feed supply for chickens, dogs, cats, and other homestead animals, then you might want to give some of my fishing methods a try.

Trotlines

Probably my very favorite fishing technique is using a trotline. Most folks will automatically associate this method with big-river catfish fishing, but the trotline is a highly effective means of taking large quantities of just about any sort of fish, from just about any water. By learning to be real adaptable in regards to baits,



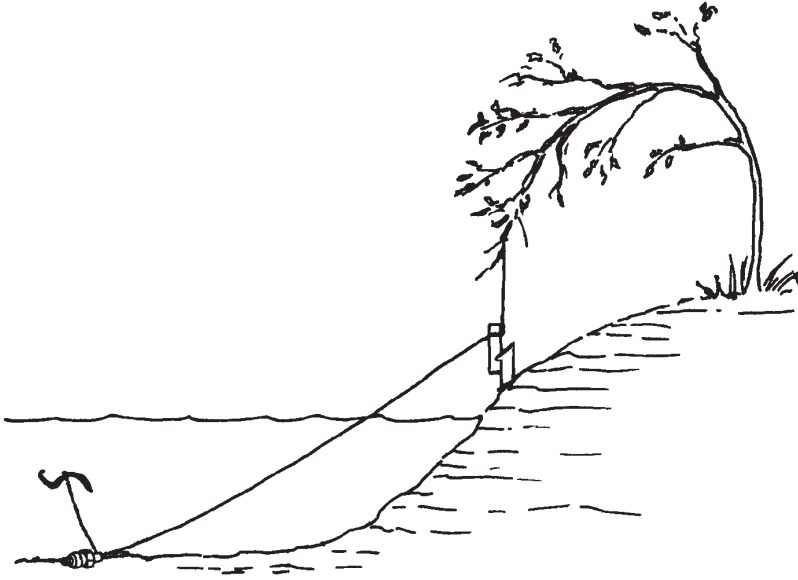
Trotline with a mid-depth set

depths, setting methods, etc., you can see how versatile the trotline can be. In addition to the various catfish and "rough" fish like carp and suckers, my trotlines regularly catch crappie, bluegill and other sunfish, largemouth and smallmouth bass, white and yellow perch, white and yellow bass, bullheads, drum, striped bass, sauger, gar, even walleye and northerns.

The method I use for setting out a trotline may differ a little from that used by most anglers, but I've found it to be the most effective and adaptable way to employ this technique. To start with you'll need an anchor, a float, and enough light rope to reach from the bottom to the water's surface, for each end of your trotline.

If you'll take a look back at my article on making canvas decoys in *Backwoods Home* Issue No. 35, you can see how to put together a simple kelly anchor. For trotline use, these will need to be quite a bit heavier than those used to anchor decoys, probably 15 pounds at the minimum. Other anchor options could include bricks (the kind with holes in them, for affixing the rope), cinder blocks, cement-filled coffee cans with U-shaped pieces of iron re-bar embedded in the cement, junk car rims, and plastic jugs filled with sand or gravel.

For floats you can consider things like empty plastic jugs (never glass), like bleach bottles, antifreeze jugs, milk jugs, and such; empty plastic buckets with tight-fitting plastic lids;



Set line using a sapling, an old spark plug sinker, and a trigger device

boards or sections of logs; two-foot or longer pieces of 4" PVC pipe, with end caps glued on; or just about anything else that will float. Should you have any concerns about punctures, any of the hollow floats can easily be filled with foam insulation. One can of insulating foam (sold at lumber yards and hardware stores) will fill quite a few such floats, and it is relatively inexpensive.

Usually quarter-inch nylon or poly rope is plenty strong enough for this sort of application. I prefer the braided ropes, but the regular twisted type works fine, too. You'll need some stout nylon cord (mason's line works fine), heavy braided fish line, and a large supply of hooks.

You'll also need to check your state's fishing regulations, as just about every state has rules regarding trotline length or number of hooks. In some states, in fact, trotlines are illegal.

Once you've determined the depth at which you'll be setting the trotline (see below), you'll want to attach the nylon cord to one of the ropes, as shown. From there, you'll attach two foot or three foot dropper lines, with baited hooks attached every two or three feet, until you've reached the

desired length. Then attach the cord to the other rope, using the same method.

Effective bait

The depth at which you'll want to set your trotline, as well as the sort of bait you'll choose, will depend upon the water you're fishing and the species you're targeting. Nightcrawlers, corn kernels, pieces of fresh or tainted liver, marshmallows, chunks of Ivory soap, stink baits, or pieces of plug tobacco, fished a foot or so off the bottom, work great for catfish and other bottom feeders. Minnows, crayfish (or peeled crayfish tails), pork rind baits, nightcrawlers or redworms, and similar baits fished at depths from three to fifteen feet will attract many species of intermediate-depth feeders. And frogs (hooked through a thigh so they'll keep swimming), crickets and grasshoppers, salamanders, mice, crayfish, and other baits set right on the surface will bring in top-feeding bass and other surface feeders. If you want, you can set your trotline so that it angles up from the bottom to the surface to cover all three zones.

In most states, the fish and game regulations require that all trotlines be checked at least once every 24 hours. While that will meet the legal require-

ments, checking the set at *least twice* daily will normally produce much better results. I prefer to check trotlines just after sunup, and again right at dusk. It seems like fish left too long on the line are frequently chewed by turtles or other fish before I get to them.

Set lines

The trotline alone can bring in steady and reliable catches when properly located, baited, and maintained. But you can increase your yields by adding several *set lines*, or *limb lines* as they are sometimes called. Again, you'll need to check your state's rules, as the number of set lines you are allowed to use is usually specified. For example, here in Indiana, each person is permitted to use a maximum of 10 set lines. Other states have similar rules.

To rig a set line, affix a length of heavy fishline to a small sapling, overhanging limb, or something else of that nature, which is both fairly strong and relatively springy. Add a baited hook (and a sinker and/or bobber if you want), and toss it out into the water. A simple trigger device, like the one shown, will automatically set the hook and add a little to the effectiveness of this setup, but it isn't absolutely necessary. Used with a heavy line, and maybe a wire leader, the drop line is an effective method for taking snappers and other large turtles as well.

When I decide to use bobbers on some of my set lines, I usually just drill a small hole through a piece of stick, and run the line through this hole, threading an ordinary button onto the line at the desired distance to act as a bobber stop. This allows the bobber to slide down next to the bait, making it a little easier to toss out the line, and then slip back up for fishing.

Set lines are especially useful for folks who don't feel like going out in their boat every day to check on a trotline. They can just as readily be set up

and maintained from shore as they can from the water.

Jug fishing

The third technique that I employ regularly is what's known as jug fishing. I attach a line with a baited hook to some sort of a float and set it adrift. Depending upon the location, I use lines between one and ten feet long.

Usually I set nine or ten such jug lines afloat, just before beginning to check on my trotlines and drop lines. Once I've finished checking these other fishing devices, I round up all of the jug lines. Every fish that has hit the bait solidly will still be "on the line," as these floats will play the fish at least as well as a professional angler with a high-dollar rod and reel setup.

Don't overdo it

When using any of these fishing methods, you do need to be realistic and responsible about what you're doing. Your goal is to bring in a large amount of succulent fresh fillets, but reducing the fish population too far is self-defeating. So just as soon as your take begins to slack off just a little bit, you'll need to move your whole setup to a different part of the lake or river, or maybe even to a different body of water altogether. That way you can return to your original location every year or two and start over.

For me, the real beauty of these fishing methods (except for the jug lines, which I only set out while already on the water) is that these trotlines and set lines are out there working 24 hours out of every day. I might be plowing, feeding hogs, eating breakfast, or playing checkers, but my simple setups are still fishing.

We use every bit of our catch. If you keep any animals that will eat fish, from hogs or chickens to hounds or barn cats, you might want to try feeding them what we call "scrap stew," so you can put all of your fish scraps to use. Just toss all of your fish heads,

A BHM Staff Profile: Muriel Sutherland

Muriel Sutherland is an Administrative Assistant at *Backwoods Home Magazine*. She works part-time, helping with all the activities of the busy office.

She has more than 20 years of experience in office work and is often counted on to get out particularly large mailing projects. She and her husband retired to the Oregon Coast in 1997.

Muriel's hobbies are eating, cooking, reading, knitting, and working at the magazine. She has two children and six grandchildren.



entrails, fins, bones and such into a metal drum set over a fire. Add enough water to cover, and boil until all of the bones are soft enough to be eaten easily. Now, depending on what sort of animals you'll be feeding, add some sort of a thickening agent. For dogs and cats, cracked corn, soybeans (or other beans), stale bread, old cornmeal, weevilly flour, or things of that nature work fine. For livestock like hogs or chickens, chopped hay, freshly mowed grass, bad or cull potatoes or onions, sweet acorns, bad apples or other fruit, and similar waste produce can also be added. Spoiled or surplus milk or other dairy products can also be used up in this stew.

Let this stuff simmer, stirring it once in a while with a board or something, until it's thickened like oatmeal or mush. Then allow it to cool completely before feeding. All of this extra protein will put a really nice healthy shine on a dog or cat's coat, or fatten a pig very nicely, or put a really big boost into your chickens' egg output.

Before you start tossing your catch of carp and other "rough" fish into this kettle, however, you should try putting

A BHM Staff Profile: Nathele Graham

Nathele Graham is an Editorial Assistant at the magazine. She is one of the happy voices you encounter when you call the magazine on the telephone. Besides waiting on customers, she processes credit cards, fills orders, and assists Ilene Duffy with banking chores.

Nathele has 20 years of experience in the Title Company business, and she brings her experience in dealing with the public to the *Backwoods Home Magazine Bookstore*, where she can be found Saturdays waiting on customers. She also helps take care of the BHM booth at the Curry County Fair.

Her hobbies are Tole painting and knitting. She is married to the magazine's Operations Manager, Ron Graham, and their daughter, Amanda, 9, can often be found playing with the Duffy children in the magazine's Gold Beach, Oregon, offices.



them into your smokehouse for a while, even if you just use an old refrigerator with a can full of damp hardwood sawdust, or ground corn-cobs set on a hotplate. Smoking these fish is almost like working magic, as the fillets will turn from trash-fish into a true delicacy.

If you try any of these fishing techniques, you should see good results right from the start. As you gain experience using these methods in your local waters, these simple and inexpensive fishing methods will become really valuable "working assets." If you enjoy dining regularly on fresh fish, I promise you'll be impressed. Δ

You can make this effective gray water disposal system

By Steve Anderson

One of the things you need to worry about when you build your own home is waste water disposal. Even if you're starting with an outhouse, or installing a gas or composting toilet, you still need to safely carry off gray water waste from your kitchen and laundry. That muddy puddle (and the odor from it) at the end of a pipe run through the kitchen wall gets old fast. We solved the problem with a small, inexpensive, home-crafted tank and drainage system modeled on the big expensive ones.

It took us two tries to get it right ("us" being my son, my nephew, and me). Our first system functioned for about a year before failing. The first hint of trouble was a kitchen sink that seemed to take forever to drain. Finally it just stopped working during spring thaw, when the ground around the drainage system was saturated from snowmelt and heavy April rains.

Once the soil dried out enough for digging, we found a system totally clogged with matter that had the consistency of oatmeal. There were two major problems: We hadn't provided enough drainage—that much was obvious. But it wasn't until my son did a little research that the second problem became obvious. Modern septic tanks have an internal baffle system that keeps solids from getting from the tank into the drain pipe and leach fields. The purpose of the holding tank is to digest those solids before they reach the leach field.

Getting tanked up

We stuck with our basic design, though. The heart of our system is a blue plastic 55-gallon drum that we bought used for \$10. To install the

internal baffle, we cut off the top of the drum, about two inches below the rim. This allows plenty of surface area to re-attach the top with flat metal bracing. This bracing is available (pre-drilled for nuts and bolts) at the hardware store, or you can make your own.

We cut a four-inch hole in the top of the drum for the drain pipe from the house, then mounted a 15-gallon round plastic trash can (with the bottom cut out) on the inside of the lid, so the drain pipe from the house empties through it. This trash can acts as a baffle and keeps all floating vegetable matter away from the drain pipes that exit the drum. The stuff that sinks is kept below the drains, and everything is properly digested by bacterial action before making its way to the drain pipes. We mounted the trash can baffle to the top of the drum with three 90° zinc-plated corner braces. All the hardware is fastened with nuts and bolts after drilling holes through the plastic.

To finish the top, you need to cut another four-inch hole for a cleanout pipe. I used PVC cement to attach a plug at the top that I can unscrew to pump out the tank every few years. This way the system will work for a long time. We used four-inch PVC for this, once again mounting it with corner bracing. A four-inch PVC elbow was mounted to accept the drain pipe from the house.

You may be wondering why we designed this so we had to bury the drum standing up. Well, we learned from our first try: Yes, it required less digging to lay the drum on its side, but the weight of the earth collapsed the area of the drum above the drains.

Before putting the top of the drum back on, we cut two four-inch holes



The tank is in the ground with gravel laid underneath the drain pipes. Use plenty of gravel for proper drainage.

for the drain pipes 180° across from each other. These were cut just an inch or so below the seam joining the top and the side of the drum, so they are well above the bottom of the interior baffle. After the top was re-attached, and all the PVC installed, we applied generous amounts of 50-year silicone caulking wherever PVC goes through the tank. We didn't worry too much about a little leakage, because we dug our hole so we could get a generous foot or so of gravel underneath the tank, and four to six inches of space around it for the same treatment. Any leakage from the tank will simply drain through that, and leach back into the soil.

Laying the groundwork

As mentioned earlier, our first attempt at this project didn't provide enough drainage. We weren't going to make that mistake again. We dug two eight-foot-long trenches for perforated PVC drain pipe. We dug them deep enough to get eight inches of gravel underneath them. The whole system is deep enough so we don't have to worry about freeze-ups. The trenches are generous in width also, about 18

inches wide. The boys did the digging, and they were determined to get it right. They both thought doing it twice was enough, thank you very much.

If you're not sure about the drainage capacity of the soil, do a percolation test. Dig a one-foot-diameter hole two feet deep and fill it halfway with water. If there is still water in the hole an hour later, the soil is not suitable, and you need to pick a different spot. (You *could* construct a drainage bed with at least two feet of cracked stone underneath your drain pipes. I'd find another spot.)

We wanted good, clean gravel to use for the drain bed. The first time, we had used a sandy, stony mix that barely qualified as gravel. The problem was, we didn't need very much, and around here it's very hard to get as small a quantity as a couple yards of gravel delivered. But we found a solution, which I will describe. Without digressing too much, I'll admit that I'm a hardware store junky. A positive aspect to that is I probably know the inventory better than some of the sales help. I won't go into the negative aspects, except to say they usually involve spending too much money.



Tank with cleanout pipe mounted, hay in place, ready to be covered. Note generous amount of caulking around base of cleanout pipe.

But I had spied a pallet of about twelve bags of landscaping marble chips off to the side at one of the local stores (or "Dad's hangouts," as the kids call them). Since it was well past spring landscaping season, I was able to make a good deal on the whole batch and got out of it cheaper than if I had been able to find someone to deliver a yard of clean gravel. This went under the drain pipes, and six inches of hay went over them. The hay is to keep soil from filtering down and plugging the drains. We used what was left over of the old gravel to go around and under the tank. Then we covered the whole thing up. Later that fall, I went back and filled in the spots that had settled.

Venting

Septic tanks are designed to work with air and bacteria to digest solids into sludge. This greatly reduces the volume of the solids in the tank. A properly working system only needs to be pumped out every five years or so, depending on the number of people living in the house. You need to vent your system so the air outlet is above all the drains. My vent runs off the drain pipe under the sink (on the tank side of the trap), through the wall, and up the outside wall almost to my eaves.

The system described in this article has been in place for almost two years now and is working fine. There have been no back-ups or freeze-ups. To be perfectly honest, the kitchen sink does drain slowly when the ground is saturated in the spring. (By that I mean the sink is empty by the time I'm done wiping everything down after doing the dishes.)

A couple of rules

We also have a couple of hard and fast rules regarding the sink: Always make sure the drain basket is in the drain—always. I figure the more material I can keep out of the tank, the

Materials & costs

Tank	\$10.00
4" PVC elbow3.99
Cleanout pipe & cap4.99
8 corner irons4.18
Caulking4.99
Two 8' perf. drain pipes . .	.11.90
Gravel12.00
<u>Misc. hardware</u>	<u>.3.00</u>
Total\$55.05

longer it will be before I have to pump it out. Never let meat products (grease) into the sink. Coagulated bacon grease and other animal fat won't digest, so I try to keep it out of the system. Every now and then I dump in a half bottle of beer or so to keep the whole thing percolating.

If you're going to be successful at living independently, you've got to be willing to live by the old adage, "If at first you don't succeed, try, try again." Everything just isn't going to work the first time you try it. You don't become a jack of all trades overnight. Even doing this thing twice only cost us more labor and time. And you've got to learn from your mistakes.

Our second attempt is working fine, but if I had to do it again I would make it even better: I'd put in another drain pipe. I couldn't get the boys to dig that third trench. They swore two was enough, and so far they're right. And I'd look for stainless steel hardware—I'm not sure how long the zinc-plated stuff will last. You could also spend more and have each and every one of those holes through the tank waterproof, but all the fittings for that aren't cheap.

And there you have it: an inexpensive, safe, effective disposal system for gray water wastes for about \$50, even if you have to go out and buy everything. I don't have more than \$25 in mine. I had a lot of the stuff around before I started. It pays to be kind of a packrat. Δ